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OM protein - protein search, using sw model

Run on: April 7, 2004, 10:41:40 ; Search time 24 Seconds
(without alignments)
2019.866 Million cell updates/sec

Title: US-10-029-065-2

Perfect score: 4859

Sequence: 1 MNENLEQSKLPKLDKQ.....KMKTDLERDAVSHWLQOFF 939

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA.*

- 1: /cgn2_6/ptodata/2/iaa/5A_COMB.pap.*
- 2: /cgn2_6/ptodata/2/iaa/5B_COMB.pap.*
- 3: /cgn2_6/ptodata/2/iaa/6A_COMB.pap.*
- 4: /cgn2_6/ptodata/2/iaa/6B_COMB.pap.*
- 5: /cgn2_6/ptodata/2/iaa/PTCUS_COMB.pap.*
- 6: /cgn2_6/ptodata/2/iaa/backfiles.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1841.5	37.9	934	1	US-08-457-176-2
2	1841.5	37.9	934	1	US-08-457-175-2
3	1841.5	37.9	934	3	US-08-709-784-1
4	1841.5	37.9	934	4	US-09-651-656-3
5	1841.5	37.9	934	4	US-09-650-855-3
6	1841.5	37.9	934	4	US-09-708-200-13
7	1841.5	37.9	934	4	US-09-788-657-19
8	1841.5	37.9	1010	4	US-09-512-250C-31
9	1818.5	37.4	935	4	US-09-512-250C-33
10	1761	36.2	940	4	US-09-512-250C-2
11	1571	32.3	1042	4	US-09-512-250C-32
12	797	16.4	891	4	US-09-134-001C-4913
13	740.5	15.2	819	4	US-09-651-656-15
14	740.5	15.2	819	4	US-09-650-855-15
15	724.5	14.9	240	4	US-09-651-656-1
16	724.5	14.9	240	4	US-09-650-855-1
17	720.5	14.8	858	4	US-09-134-000C-5428
18	719	14.8	885	4	US-09-107-532A-5104
19	715	14.7	855	2	US-08-468-558-2
20	715	14.7	855	3	US-08-676-444-2
21	708	14.6	1307	4	US-09-252-991A-20867
22	675.5	13.9	853	2	US-08-468-558-3
23	675.5	13.9	853	3	US-08-676-444-3
24	663	13.6	874	4	US-09-543-681A-6958
25	654	13.5	855	4	US-09-489-039A-10151
26	652	13.4	891	4	US-09-328-352-6637
27	646.5	13.3	793	2	US-08-468-558-5

Sequence 5, Appli
Sequence 22, Appl
Sequence 1012, Ap
Sequence 54, Appl
Sequence 29, Appl
Sequence 2, Appli
Sequence 27, Appl
Sequence 4386, Ap
Sequence 6734, Ap
Sequence 3866, Ap
Sequence 6056, Ap
Sequence 4217, Ap
Sequence 3903, Ap
Sequence 43, Appl
Sequence 43, Appl
Sequence 5, Appli
Sequence 28, Appli

ALIGNMENTS

RESULT 1
US-08-457-176-2
; Sequence 2, Application US/08457176
; Patent No. 5591826
; GENERAL INFORMATION:
; APPLICANT: Vogelstein, Bert
; APPLICANT: Kinzler, Kenneth W.
; APPLICANT: de la Chappelle, Albert
; TITLE OF INVENTION: Mutator Gene and Hereditary
; TITLE OF INVENTION: No. 5591826-Polypoid Colorectal Cancer
; NUMBER OF SEQUENCES: 16
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Banner, Birch, McKie, and Beckett
; STREET: 1001 G Street, N.W.
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20001

COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/457,176
; FILING DATE: 01-JUN-1995
; CLASSIFICATION: 530

PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/160295
; FILING DATE: 02-DEC-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Kagan, Sarah A.

REGISTRATION NUMBER: 32,141
; REFERENCE/DOCKET NUMBER: 01107.44900
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202.508.9100
; TELEFAX: 202.508.9299

TELEX: 197430 BMB UT
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 934 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear

MOLECULE TYPE: protein
; HYPOTHETICAL: YES
; ANTI-SENSE: NO
; ORGANISM: Homo sapiens

US-08-457-176-2

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Query Match      37.9%; Score 1841.5; DB 1; Length 934;
Best Local Similarity 43.0%; Pred. No. 1.8e-164;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKQKQAGFLSPFKTLPKDP-RAVRLPDRDYVTSHGDDATFAETVYHTTALRQLG 72
Db 9 LQLESAAEVGFVRPFGQMPKPTTVRLPDRGDFYTAHGEDALLAAREVFKTQGVKIMG 68

QY 73 NR-ADALSSVSVRNMFTIARDILLERMDRTLELYEGSGN-----WRLVKSQTPGN 124
Db 69 PAGAKNLQSVLSKMNFFSFVKDILLVROYR-VEVYKRNAGKASKENDWYLAAYKASPGN 127

QY 125 LGSFEDILFANNEMONSPIVIAALAPNFGQNGCEVGLGYVDITKRVLGLTEFLDDSHFTNL 184
Db 128 LSQFEDILFGNNDMSASIGVGVKMSAVDQGVGVYVDSIQKLGCLCEFPDNDQFSNL 187

QY 185 ESALVALGCRECLVP-AET-GKSSEYRPMFDAISRCGVMTTERKTEFKGRDLVDLQRL 242
Db 188 EALLIIGPKCEVLPFGGETAGDMGKLRIQI---IQRGILLITERKKADFTKDIYQDLNRL 244

QY 243 VKG-----SVEPRDLVSGFECASGALGCLISYAEILLADESNYGVYKQYNLSYM 294
Db 245 LKKGKGEQWNSAVLPME-----NQVAVSSLSAVIKFLELLSDSNFGQFELTTFDSQYM 300

QY 295 RLDSAAAMRALNWE-SKSDANKNFSIFGLMNRCTCTAGMKRLHMLWKOPLLDVEEINCR 353
Db 301 KUDIAARVRLNLFQSGVEDTQSGSLAALNK-CKTPQGORLVNOWNIKOPLMDKRIEER 359

QY 354 LDVQSFEVDAALRODLROH-LKRISDIERLTHNLERKEASLVHVVKLYQSSTRVPIYKS 412
Db 360 LNLVAFVEDAEELRQTLQEDLLRRPDLNRLAKKQORQAANLQDCVRLYQGINQPNVIQ 419

QY 413 VLERHGGQFATLIRYRIDSLEKSDNNHKNFKFGLVTSVDLDQLENGEYMISSAYDPN 472
Db 420 ALERHEGKHQKLLAVFVPTPLDLRSD--FSKPEMIETTLDDMDQVENHEFLVKPSFDPN 477

QY 473 LSALDKDEQETLROHNLHKKQANDLPLDKSLKLDKETQGHVFRITTKKEPKVRKQL 532
Db 478 LSELREIMNDLEKKMOWSTLISAARDLGLDPGKQIKLSSAQFGYPRVTCKEKVLRN-- 535

QY 533 NGHYIVLETRKGVKFTYTKLKKLGDFQFKIVVEEYKSCQKELVARVVOAASFSEVFAGI 592
Db 536 KKNFSVTDIQKNGVKFTNSKLTSLNEEYTKNKTEVEEAQDAIVKEIVNTSSGVVPEMQL 595

QY 593 AGVLAELDLVLFPADLAASCPPTYPNISPDDTGBIILEGCRHPCVBAQDWNSIPND 652
Db 596 NDVLAQLDAVVSFAHVSNGAPVYVRPAILEKGGQRILLKASHRACVQVQDEIAFPNDV 655

QY 653 RLVRGSEWFIITGPNMGKSTVIROGVNVLMAQVGSFVPCDNATISIDCIFAARVAG 712
Db 656 YFEKDKQMEHIIITGPNMGKSTVIROGVNVLMAQVGSFVPCDNATISIDCIFAARVAG 715

QY 713 DCQLRGVSTFMQEMLETSILKIGATDRSLIIDELEGRTSTYDGFGLAWAICEHIVETK 772
Db 716 DSQKLGKSTFMAEMLETSILRSATKDSLIIDELEGRTSTYDGFGLAWAISEVIATKIG 775

QY 773 APTLPATHPHELTALANGNDGKHKNAGIANPHVFAHIDPNSRKLTMLYKVPHPGACDOS 832
Db 776 AFCMFATPHELTALAN-----QIPVNNLHVTL--TTEETITMLYQVKKVGCDS 825

QY 833 FGHVAFEFANFPSPVVALAREKASELEDSPIALIPN-DIKEAASKR--KREFDRHDVS 888
Db 826 FGHVAFELANFPKHVIECAKQALEEFOYIGESQGYDIMEPAAKCYLIERE----- 878

QY 889 RGTARARQFLQDFAQLPDRMDPNVVRQKLSKMTDL 925
Db 879 QGEKIIQEFLSKVKQMPTESEMENITIKLKQLKAEV 915

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RESULT 2
US-08-457-175-2
; Sequence 2, Application US/08457175

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; Parent No. 5693470
; GENERAL INFORMATION:
; APPLICANT: Vogelstein, Bert
; APPLICANT: Kinzler, Kenneth W.
; APPLICANT: de la Chappelle, Albert
; TITLE OF INVENTION: Mutator Gene and Hereditary
; TITLE OF INVENTION: No. 5693470-Polyposis Colorectal Cancer
; NUMBER OF SEQUENCES: 16
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Banner, Birch, McKie, and Beckett
; STREET: 1001 G Street, N.W.
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20001
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/457,175
; FILING DATE: 01-JUN-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/160295
; FILING DATE: 02-DEC-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Kagan, Sarah A.
; REGISTRATION NUMBER: 32,141
; REFERENCE/DOCKET NUMBER: 01107.44900
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202.508.9100
; TELEFAX: 202.508.9299
; TELEX: 197430 BMB UT
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 934 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEICAL: YES
; ANTI-SENSE: NO
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; US-08-457-175-2

Query Match      37.9%; Score 1841.5; DB 1; Length 934;
Best Local Similarity 43.0%; Pred. No. 1.8e-164;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKQKQAGFLSPFKTLPKDP-RAVRLPDRDYVTSHGDDATFAETVYHTTALRQLG 72
Db 9 LQLESAAEVGFVRPFGQMPKPTTVRLPDRGDFYTAHGEDALLAAREVFKTQGVKIMG 68

QY 73 NR-ADALSSVSVRNMFTIARDILLERMDRTLELYEGSGN-----WRLVKSQTPGN 124
Db 69 PAGAKNLQSVLSKMNFFSFVKDILLVROYR-VEVYKRNAGKASKENDWYLAAYKASPGN 127

QY 125 LGSFEDILFANNEMONSPIVIAALAPNFGQNGCEVGLGYVDITKRVLGLTEFLDDSHFTNL 184
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QY 185 ESALVALGCRECLVP-AET-GKSSEYRPMFDAISRCGVMTTERKTEFKGRDLVDLQRL 242
Db 188 EALLIIGPKCEVLPFGGETAGDMGKLRIQI---IQRGILLITERKKADFTKDIYQDLNRL 244

QY 243 VKG-----SVEPRDLVSGFECASGALGCLISYAEILLADESNYGVYKQYNLSYM 294
Db 245 LKKGKGEQWNSAVLPME-----NQVAVSSLSAVIKFLELLSDSNFGQFELTTFDSQYM 300

QY 295 RLDSAAAMRALNWE-SKSDANKNFSIFGLMNRCTCTAGMKRLHMLWKOPLLDVEEINCR 353

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Qy 354 LDLVQSFVEDAALRQDLRQH-LKRISDIERLTHNLKRASLVHVVKLYQSGSTVPYIKS 412
Db 360 LNLVEAFVEDAELRQTLQEDLLRRFPDLNRLAKKFORQAANLQDCYRLYQGINQLPNVIQ 419
Qy 413 VLERHDCQFATLIRERYIDSLKESDDNHLNKFGLVETSDLDLENGEYMISSAYDPN 472
Db 420 ALEKHEGKHQKLLAVFVPTLDRSD--FSKQEMTETLDMQVENHHEFLVPSFDPN 477
Qy 473 LSALKDQETLERQHNLHKLQANDLPLDKSLDKLQKQETQGHVFRITKKEEKKVRKQL 532
Db 478 LSELREIMNDLEKXQSTLISAARDLGLDCKQLDSSAQFGYFVFTCKEEKVLN-- 535
Qy 533 NSHYVILETRDQGVKFTYTKLKGDOFQKIVEYKSCQKELVARVVOTAAASFSEVAGI 592
Db 536 NKNFSTVDIQKNGVKFTNSKLTSLSNEEYTKNKEEYEAQDAIVKEIWNISSGYVPMQTL 595
Qy 593 AGVLAEIDLVLSPADLAASCFTPTVTRNISPDDTGDIILEGCRHPCVCEADWNVNSINDC 652
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Qy 653 RLVRGESWFOITGPNMGKSTYIRQGVNVMAOVGSFVPCDNATISIRDCIFARYGAG 712
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Qy 713 DCQLRGVSTFQEMLEMTASILKGTDRSLIIDLGRGTSTYDGFGLAWAICEHIVEIK 772
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Qy 773 APTLFATFHHELTALANKNGDNHKNAGIANFHVFAHIDPSNKLTMLYKVHPGACDQS 832
Db 776 AFCMFATFHHELTALAN-----QPTVNNLHVTL--TTEETLWLYOVKGVCDQS 825
Qy 833 FGIHVAEFANPPPSVALAREKASELEDPSIAIPN-DIKEASKR---KREFDRHDVS 888
Db 826 FGIHVAELANFPKHVIECAKQALEEDEFYIGESQGVIMEPAKKCYLERE----- 878
Qy 889 RGTARARQFLQDPAQLPLDKMDPNVVRQKLSKMTDL 925
Db 879 QGEXIIQEFLSKVQMPFTEENSEENITIKQLKRAEV 915

RESULT 3
; Sequence 1, Application US/08709784
; Patent No. 6048701
; GENERAL INFORMATION:
; APPLICANT: The Johns Hopkins University
; TITLE OF INVENTION: Antibody Detection of Mismatch Repair
; TITLE OF INVENTION: Protein
; NUMBER OF SEQUENCES: 3
; CORRESPONDENCE ADDRESS:
; ADDRESS: Banner & Allegretti, Ltd.
; STREET: 1001 G Street, N.W.
; CITY: Washington
; STATE: D.C.
; COUNTRY: U.S.A.
; ZIP: 20001-4597
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08709,784
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/480,351
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
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; NAME: Kagan, Sarah A.
; REGISTRATION NUMBER: 32,141
; REFERENCE/DOCKET NUMBER: 1107,57434
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-508-9100
; TELEFAX: 202-508-9299
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 934 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHETICAL: YES
; ANTI-SENSE: NO
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; US-08-709-784-1

Query Match 37.9%; Score 1841.5; DB 3; Length 934;
Best Local Similarity 43.0%; Pred. No. 1.8e-164;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

Qy 14 LKLDKAOAQOGLSFFKTLPKDP-RAVRLDFDRDYTTSGDDATPIAETYYHTTTALRQLG 72
Db 9 LQLESAAEVGFVRFFQGMPEKPTTVLDFDRGDFYTAHGEDALLAAREVFKTGVIKYM 68
Qy 73 NR-ADALSSVSVSRNMPETTARDILLERMORTLELYEGSGSN-----MRLVKSGETPGN 124
Db 69 PAGAKNLQSVLVSKMNPESFVKOLLVRQYR-VEVYKNRAGNKASKENDWYLAVKASPGN 127
Qy 125 LGSFEDILFANNQNSPVIATAALAPNFGQNGCEVGLGVDTITKVLGTETFLDDSHSTNL 184
Db 128 LSPFEDILFGNNDMSAGIVGVGMSAVDQORQGVGVDSIQKGLGCEPFDNQSNL 187
Qy 185 ESALVALGCRECLVP-AET-GKSSEYRPMFPAISRCGVMMVTERKTKTFKGRDLVQDLGRL 242
Db 188 EALLIQIGPKCEVLPGGETAGDMGKLRI--IQRGGILITERKKADFKDIYQDLNRL 244
Qy 243 VKG-----SVEPVRLDVSFGECAGALGCILSYAELLADESNYNYTVKYNLSYM 294
Db 245 LKGGKGEQMSAVLPME---NQAVVSSLASAVIKFLELLSDDSNFGQFELTTDFDSQYM 300
Qy 295 RLDSAMRALNVME-SKSDANKNPLFGLNRTCTAGMKRLLHMLKQPLLDVEEINCR 353
Db 301 KLDIAAVALNLFGSVEDITGQSQAALLNK-CKTPQGQLVNVQIKQPLMDKNRIEER 359
Qy 354 LDLVQSFVEDAALRQDLRQH-LKRISDIERLTHNLKRASLVHVVKLYQSGSTVPYIKS 412
Db 360 LNLVEAFVEDAELRQTLQEDLLRRFPDLNRLAKKFORQAANLQDCYRLYQGINQLPNVIQ 419
Qy 413 VLERHDCQFATLIRERYIDSLKESDDNHLNKFGLVETSDLDLENGEYMISSAYDPN 472
Db 420 ALEKHEGKHQKLLAVFVPTLDRSD--FSKQEMTETLDMQVENHHEFLVPSFDPN 477
Qy 473 LSALKDQETLERQHNLHKLQANDLPLDKSLDKLQKQETQGHVFRITKKEEKKVRKQL 532
Db 478 LSELREIMNDLEKXQSTLISAARDLGLDCKQLDSSAQFGYFVFTCKEEKVLN-- 535
Qy 533 NSHYVILETRDQGVKFTYTKLKGDOFQKIVEYKSCQKELVARVVOTAAASFSEVAGI 592
Db 536 NKNFSTVDIQKNGVKFTNSKLTSLSNEEYTKNKEEYEAQDAIVKEIWNISSGYVPMQTL 595
Qy 593 AGVLAEIDLVLSPADLAASCFTPTVTRNISPDDTGDIILEGCRHPCVCEADWNVNSINDC 652
Db 596 NDVLAQLDVAVSFAHVSNGAPVVPVRAILEKGGQRIILKASRHACVEQDEIAFINDV 655
Qy 653 RLVRGESWFOITGPNMGKSTYIRQGVNVMAOVGSFVPCDNATISIRDCIFARYGAG 712
Db 656 YFEKDKQMFHIIITGPNMGKSTYIRQGVNVMAQICGTFVPCESAESVIVDCILARVAG 715
Qy 713 DCQLRGVSTFQEMLEMTASILKGTDRSLIIDLGRGTSTYDGFGLAWAICEHIVEIK 772
Db 716 DSQKGVSTFMAEMLEMTASILRSATKDSLIIDLGRGTSTYDGFGLAWAISEYIATKIG 775
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Db 716 DSQKGVSTFMAEMLETSILRSATKDSLIIDELGRGTSTYDGFGLAWAISEYIATKIG 775
QY 773 APTLFATHFHELTALANKNGDNHKKAGIANPHVFAHIDPSNRKLTMLYKVPACDQS 832
Db 776 AFCMEATHFHELTALAN-----QIPTVNNLHVTAL--TTEETLTMLYQVKGVCDS 825
QY 833 FGIHVAEFANPPSVVALAREKASELEDSPIALIPN-DIKEAASKR---KREFDRHDVS 888
Db 826 FGIHVAELANFPKPVIECAKQALEEFQYIGESQGYDIMEPAACKCYLERE----- 878
QY 889 RTARARQFLODFAQLPLDKMDPNVVRQKLSKMTDL 925
Db 879 QGEKIIQEFLSKVQKMPFTEMESEENITIKQLKAEV 915

RESULT 4
US-09-651-656-3
; Sequence 3, Application US/09651656
; Patent No. 6340566
; GENERAL INFORMATION:
; APPLICANT: MCCUTHEN-MALONEY, SANDRA
; APPLICANT: LAWRENCE LIVERMORE NATIONAL LABORATORY
; TITLE OF INVENTION: DETECTION AND QUANTITATION OF SINGLE NUCLEOTIDE
; TITLE OF INVENTION: POLYMORPHISMS, DNA SEQUENCE VARIATIONS, DNA MUTATIONS,
; TITLE OF INVENTION: DNA DAMAGE AND DNA MISMATCHES
; FILE REFERENCE: IL-10689
; CURRENT APPLICATION NUMBER: US/09/651,656
; PRIOR FILING DATE: 2000-08-29
; PRIOR FILING DATE: 2000-03-28
; NUMBER OF SEQ ID NOS: 106
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 934
; TYPE: PR1
; ORGANISM: Homo sapiens
US-09-651-656-3

Query Match 37.9%; Score 1841.5; DB 4; Length 934;
Best Local Similarity 43.0%; Pred. No. 1.8e-164;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKQAQGFSLFFKTLKDP-RAVRLFRDRDYTSHGDDATFIAETVYHTTTALRQLG 72
Db 9 LQESAAEAGVFRFQGMPEKPTTVLFRDGRDFTAHGEDALLAAREVFKTQGVKYM 68
QY 73 NR-ADALSSVSRNMFFETIARDILLERMDRTLELYEGSGSN-----WRLVKSGETPN 124
Db 69 PAGAKNLQSVLTKMNFESFVKDLILVQYR-VEVYKRNAGKASKENDWYLAYKASPN 127
QY 125 LGSFEDILFANNMNSPVIAALAPNFGQNGCEVGLGYVDITKRVILGLTEPLDSDSHFTNL 184
Db 128 LSQFEDILFGNDMGASIGVGVKMSAVDQGVGVYVDSIQRKLGCEFFDNDQFSNL 187
QY 185 ESALVALGCRECLVP-AET-GKSEYRPMFDAISRCGVMTTERKKTPEFKGRDLVDLGR 242
Db 188 EALLIQIGPKCVLPGETAGDMGLRQI--IQRGILLITERKADFTKDIYQDLNRL 244
QY 243 VKG-----SVEPRDLVSFECASGALGCLISVAELLADESNVNTVVQYNLSYM 294
Db 245 LKKGKEQMNASVLPME-----NQAVSSLSAVIKFLELLSDSNFQGPFLATDFPSQM 300
QY 295 RLDSAMRALNWE-SKSDANKNFSIFGLMNRCTAGMKRLLHMLKOPLDLVEINCR 353
Db 301 KLDIAVRAALNIPQGSVEDTTSQSLAALNK-CKTPQGORLVNQMIKOPLMKKNRIER 359
QY 354 LDLVQSFVEDAALRQDLROH-LKRI SDIERLTHNLERKASLVHVVKLYQCSSTRVPYIKS 412
Db 360 LNLVEAFVEDAELRQTLQEDLLRRFDLNLAKKFORQAANQDCVRLYQGINQLPNVIQ 419
QY 413 VLREHQPQATLIRERYIDSLKMSDDNHLNFI GLVETSVLDQLENGEMYSSAYDIN 472
Db 420 ALEKHEGKQKLLAVFVTPLTDLRSD--FSKQFQMIETTLDMQDVENHEFLVKGSDFN 477

QY 473 LSALKDQEQETLERQIHNLHKQTANDLDPIDKSLKDKETQGHVFRITKKEEPKVRQL 532
Db 478 LSELRIMNDLEKMQSTLISAARDLGLDPGKQIKLSDSAQFGYFRVTCREEKVLRN-- 535
QY 533 NSHYIVLSTRDKGVKFTYTKLKLGDQFQKIVVEYKSCQKELVARVWQTAAASFSEVAGI 592
Db 536 KKNFSTVDIQKNGVKFTNSKLTSLNEEYTKNKTVEEQAQDAIVKEIVNISSGYVPMQTL 595
QY 593 AGVLAELDVLLSFADLAASCTPYTRPNISPPDGTGDIILEGGRHPCVRAQDWNSIPND 652
Db 596 NDVLAQLDAVVSFAHVSNGAPVPYVRPAILEKQGRIILKASHACVEVQDEIAFIPNDV 655
QY 653 RLVRGESWFQITIGENMGKSTYIRQVGVNVLMAQVSPVPCDNATISRDICIFARVGAG 712
Db 656 YFEKDKQMPHITGNMGKSTYIRQTVIVLMAQIGCFVPCESAEVSLVDCILARVGAG 715
QY 713 DCQLRGVSTFMOEMLETSILKATDRSLIIIDELGRGTSTYDGFGLAWAICEHIVEEIK 772
Db 716 DSQKGVSTFMAEMLETSILRSATKDSLIIDELGRGTSTYDGFGLAWAISEYIATKIG 775
QY 773 APTLFATHFHELTALANKNGDNHKKAGIANPHVFAHIDPSNRKLTMLYKVPACDQS 832
Db 776 AFCMEATHFHELTALAN-----QIPTVNNLHVTAL--TTEETLTMLYQVKGVCDS 825
QY 833 FGIHVAEFANPPSVVALAREKASELEDSPIALIPN-DIKEAASKR---KREFDRHDVS 888
Db 826 FGIHVAELANFPKPVIECAKQALEEFQYIGESQGYDIMEPAACKCYLERE----- 878
QY 889 RTARARQFLODFAQLPLDKMDPNVVRQKLSKMTDL 925
Db 879 QGEKIIQEFLSKVQKMPFTEMESEENITIKQLKAEV 915

RESULT 5
US-09-650-855-3
; Sequence 3, Application US/09650855
; Patent No. 6365355
; GENERAL INFORMATION:
; APPLICANT: MCCUTHEN-MALONEY, SANDRA
; APPLICANT: LAWRENCE LIVERMORE NATIONAL LABORATORY
; TITLE OF INVENTION: CHIMERIC PROTEINS FOR DETECTION AND QUANTITATION OF DNA
; TITLE OF INVENTION: MUTATIONS, DNA SEQUENCE VARIATIONS, DNA DAMAGE AND DNA
; TITLE OF INVENTION: MISMATCHES
; FILE REFERENCE: IL-10284
; CURRENT APPLICATION NUMBER: US/09/650,855
; CURRENT FILING DATE: 2000-08-29
; PRIOR FILING DATE: 60/192,764
; PRIOR FILING DATE: 2000-03-28
; NUMBER OF SEQ ID NOS: 106
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 934
; TYPE: PR1
; ORGANISM: Homo sapiens
US-09-650-855-3

Query Match 37.9%; Score 1841.5; DB 4; Length 934;
Best Local Similarity 43.0%; Pred. No. 1.8e-164;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKQAQGFSLFFKTLKDP-RAVRLFRDRDYTSHGDDATFIAETVYHTTTALRQLG 72
Db 9 LQESAAEAGVFRFQGMPEKPTTVLFRDGRDFTAHGEDALLAAREVFKTQGVKYM 68
QY 73 NR-ADALSSVSRNMFFETIARDILLERMDRTLELYEGSGSN-----WRLVKSGETPN 124
Db 69 PAGAKNLQSVLTKMNFESFVKDLILVQYR-VEVYKRNAGKASKENDWYLAYKASPN 127
QY 125 LGSFEDILFANNMNSPVIAALAPNFGQNGCEVGLGYVDITKRVILGLTEPLDSDSHFTNL 184
Db 128 LSQFEDILFGNDMGASIGVGVKMSAVDQGVGVYVDSIQRKLGCEFFDNDQFSNL 187

185 ESALVALGCRECLVP-AET-GKSEYRPMFDAISRCGVMMVTERKTKTFKGRDLVDLQRL 242
188 EALLIQIGPKECVLPGETAGDMGKLRQI---IQRGGLILITERKADFSKDIYQDLNRL 244
243 VKG-----SVEPVDLVSGFCASGALCIIISYAEILLADESNYNYTVKQYNLSYM 294
245 LKGGKGEQMSAVLPME---NOVAVSSLSAVIKFLELLSDSNFQGFELTTDFDSQYM 300
295 RLDSAAARALNVME-SKSDANKNFSLFLMNRCTTAGMKRLLHMLKQPLLDVEEINCR 353
301 KLDIAAVALNLPFGSVEDTTGSQSLAALNK-CKTQGGQLVNVQIKQPLMDKRNREER 359
354 LDLVQSVFEDAALQDLRQH-LKREISDIERLTHNLKRASLVHVVKLYQSTSRVPYIKS 412
360 LNLVEAFVEDAEALRQTLQEDLLRRFPDLNLRKAKKFORQAANLQDCYRLQINGQLPNVQ 419
413 VLEHDSQFATLIRERYIDSLKESDDNHLNKFGLVETSVDDLQENGEWMSIADPN 472
420 ALEKHGKHQKLLAVFVPLTDLRSD--FSKQFEMIETLDMQVENHEFLVPSFDPN 477
473 LSALKDEQETLEROIHNHKTANDLDPIDKSLDKETOFGHVFRITKKEEPPKVRQL 532
478 LSELREIMNDLEKXQMSLISAARDLGLDPCKQIKLDSSAQFGYFRVTCKEEVLRN-- 535
533 NSHYVILETRKDGKVFYTKLKLGDQFKIYBYKSCQKELVARVVOATAASFSEVFAGI 592
536 KKNFSTVDIQKNGVKFTNSKLTSLNEEYTKNTEVEEAQDAI VKEIVNISSGYVEPMQTL 595
593 AGVLAEIDLVSFADLAASCTPTTRPNISPPDGDIIILEGCRHPCVCEADWVNSIPNDC 652
596 NDVLAQLDVAVVSFAHVSNGAPVYVPRPAILEKGGQRIILKASRHACVEQDEIAFIPNDV 655
653 RLVRGESWFOIITGPNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 712
656 YFEKDKQMFHIIITGPNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 715
713 DCQLRGVSTFQEMLETAIILKATDRSLIIDIELGRGTSTYDGFGLAWAICEHIVEIK 772
716 DSQKGVSTFMAEMLETAIILRSATKDSLIIDIELGRGTSTYDGFGLAWAISEVIATKIG 775
773 APTLFATHFELTALANKGNGHKKAGIANFHVFAHIDPSNRKLTMLYKVVHGCADQS 832
776 AFCMFATHFELTALAN-----QIPTVNNLHVTA--TTEETLTMLYQVKKGVCDQS 825
833 FGIHVAEPANPPPSVVALAREKASELEDSPALIPN-DIKEAASKR---KREFDRHDVS 888
826 FGIHVAELANFPKHVIECAKQKALEEFQYIGESQGYDIMEPAKKCYLERE----- 878
889 RGTARARQLODFAQLPDLKMDPNVVRQKLSKMKTDL 925
879 QGEKIIQEFLSKVQMPFTEEMSEENITIKLQKLAEV 915

RESULT 6

US-09-708-200-13
; Sequence 13, Application US/09708200
; Patent No. 6576468
; GENERAL INFORMATION:
; APPLICANT: Nicolaides, Nicholas C
; APPLICANT: Grasso, Luigi
; APPLICANT: Sassi, Philip M
; TITLE OF INVENTION: METHODS FOR ISOLATING NOVEL ANTIMICROBIAL AGENTS FROM
; TITLE OF INVENTION: HYPERMUTABLE CELLS
; FILE REFERENCE: MOR-0005
; CURRENT APPLICATION NUMBER: US/09/708,200
; CURRENT FILING DATE: 2000-11-07
; NUMBER OF SEQ ID NOS: 18
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 13
; LENGTH: 934
; TYPE: PR1
; ORGANISM: Homo sapiens
US-09-708-200-13

Query Match 37.9% Score 1841.5 DB 4; Length 934;
Best Local Similarity 43.0% Pred No 1.8e-154;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKIDAKOAOQFLSFFKTLPKDP-RAVELFDRDRDYVYTHGDDATFIARTYHTTTALRQLG 72
DB 9 LQLESAAEVGFVRFQGPKEPFTTVALDFRDGDFYTAHGEDALLAAREVFVKTGQVKYMG 68
QY 73 NR-ADALSSVSYSRNMFEETARDILLERMORTLELYEGSGSN-----WELVKSQTPGN 124
DB 69 PAGAKNLQSVVLXKQNFESFVKDILLVRQYR-VEVYKRNAGNKASKENDWYLAAYKASGN 127
QY 125 LGSFEDILFANNEMONSPTVIAALAPNFGQNGCEVGLGVYDITKRVGLITEFLDDSHFNNL 184
DB 128 LSQPEDILFGNNDMSASIGVVGVKMSAVDQORQGVGVDSIQKGLGCEFPDNDQSNL 187
QY 185 ESALVALGCRECLVP-AET-GKSEYRPMFDAISRCGVMMVTERKTKTFKGRDLVDLQRL 242
DB 188 EALLIQIGPKECVLPGETAGDMGKLRQI---IQRGGLILITERKADFSKDIYQDLNRL 244
QY 243 VKG-----SVEPVDLVSGFCASGALCIIISYAEILLADESNYNYTVKQYNLSYM 294
DB 245 LKGGKGEQMSAVLPME---NOVAVSSLSAVIKFLELLSDSNFQGFELTTDFDSQYM 300
QY 295 RLDSAAARALNVME-SKSDANKNFSLFLMNRCTTAGMKRLLHMLKQPLLDVEEINCR 353
DB 301 KLDIAAVALNLPFGSVEDTTGSQSLAALNK-CKTQGGQLVNVQIKQPLMDKRNREER 359
QY 354 LDLVQSVFEDAALQDLRQH-LKREISDIERLTHNLKRASLVHVVKLYQSTSRVPYIKS 412
DB 360 LNLVEAFVEDAEALRQTLQEDLLRRFPDLNLRKAKKFORQAANLQDCYRLQINGQLPNVQ 419
QY 413 VLEHDSQFATLIRERYIDSLKESDDNHLNKFGLVETSVDDLQENGEWMSIADPN 472
DB 420 ALEKHGKHQKLLAVFVPLTDLRSD--FSKQFEMIETLDMQVENHEFLVPSFDPN 477
QY 473 LSALKDEQETLEROIHNHKTANDLDPIDKSLDKETOFGHVFRITKKEEPPKVRQL 532
DB 478 LSELREIMNDLEKXQMSLISAARDLGLDPCKQIKLDSSAQFGYFRVTCKEEVLRN-- 535
QY 533 NSHYVILETRKDGKVFYTKLKLGDQFKIYBYKSCQKELVARVVOATAASFSEVFAGI 592
DB 536 KKNFSTVDIQKNGVKFTNSKLTSLNEEYTKNTEVEEAQDAI VKEIVNISSGYVEPMQTL 595
QY 593 AGVLAEIDLVSFADLAASCTPTTRPNISPPDGDIIILEGCRHPCVCEADWVNSIPNDC 652
DB 596 NDVLAQLDVAVVSFAHVSNGAPVYVPRPAILEKGGQRIILKASRHACVEQDEIAFIPNDV 655
QY 653 RLVRGESWFOIITGPNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 712
DB 656 YFEKDKQMFHIIITGPNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 715
QY 713 DCQLRGVSTFQEMLETAIILKATDRSLIIDIELGRGTSTYDGFGLAWAICEHIVEIK 772
DB 716 DSQKGVSTFMAEMLETAIILRSATKDSLIIDIELGRGTSTYDGFGLAWAISEVIATKIG 775
QY 773 APTLFATHFELTALANKGNGHKKAGIANFHVFAHIDPSNRKLTMLYKVVHGCADQS 832
DB 776 AFCMFATHFELTALAN-----QIPTVNNLHVTA--TTEETLTMLYQVKKGVCDQS 825
QY 833 FGIHVAEPANPPPSVVALAREKASELEDSPALIPN-DIKEAASKR---KREFDRHDVS 888
DB 826 FGIHVAELANFPKHVIECAKQKALEEFQYIGESQGYDIMEPAKKCYLERE----- 878
QY 889 RGTARARQLODFAQLPDLKMDPNVVRQKLSKMKTDL 925
DB 879 QGEKIIQEFLSKVQMPFTEEMSEENITIKLQKLAEV 915

RESULT 7

US-09-788-657-19
; Sequence 19, Application US/09788657

```

; Patent No. 6556736
;
; GENERAL INFORMATION:
;
; APPLICANT: Nicolaides, Nicholas
; APPLICANT: Sass, Philip
; APPLICANT: Kinzler, Kenneth
; APPLICANT: Grasso, Luigi
; APPLICANT: Vogelstein, Bert
;
; TITLE OF INVENTION: Methods for generating hypermutable
;
; FILE REFERENCE: 0107.00097
;
; CURRENT APPLICATION NUMBER: US/09/788,657
;
; CURRENT FILING DATE: 2001-02-21
;
; PRIOR APPLICATION NUMBER: 60/184,336
;
; PRIOR FILING DATE: 2000-02-23
;
; NUMBER OF SEQ ID NOS: 25
;
; SOFTWARE: FastSeq for Windows Version 3.0
;
; SEQ ID NO 19
;
; LENGTH: 934
;
; TYPE: PRT
;
; ORGANISM: Homo sapiens
;
US-09-788-657-19

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Query Match	37.9%	Score 1841.5	DB 4	Length 934
Best Local Similarity	43.0%	Pred. No. 1.8e-164		
Matches	403	Conservative 172	Mismatches 307	Indels 55
Gaps	19			
QY	14	LKLDAAQACFLSFEKTLKDPD-RAVLEFDRRDYVTHSGDDATFIAETYYHTTTALRQLG	72	
Db	9	LQESAAEVGFVFFQGMPEKPTTTRFLFRGDFYAHGEDALLAAREVFTQGVIKYMG	68	
QY	73	NR-ADALSSVSYSRNMPEATTARDILLERMDRTLLEYSGSGN-----WRLVKSQTGPN	124	
Db	69	PAGAKNLQSVLSKMNPFESFKOLLVLVQYR-VEVYKNRAGNKASKENDWYLAYKASPGN	127	
QY	125	LGSEFDILLFANNEMQNSPVTAALAPNFGQGCFCVGLGHVYDITKRVGLITFELDDSHFTNL	184	
Db	128	LSOFEDILFNGNDMSAIGVGVGKMSAVDGRQVGVGVYDSIQKGLGICEFPDNDQFSNL	187	
QY	185	ESALVAGCCECLVP-AET-GKSSEYRPMFDDAISRCGVMTVERKTKFKGRLVDQLGRL	242	
Db	188	EALLIQIPKECVLPGGETAGDMGKRLQI---IQGGILITERRKAADFSTKDITQDNLRL	244	
QY	243	VKG-----SVEPVRDLVSGFECASGALCGILSYAELLADESNYGYTVTKVQNLSNYM	294	
Db	245	LKCKKGQMNMSAVLPEME---NQVAVSSLSAVIKFELLSDDSNFGOFELTTDFESQYM	300	
QY	295	RIDSAMRALNVWE-SKSDANKNFTSLGLMNRCTACAGMKRLLHMLWKQPLLDVEENCR	353	
Db	301	KLIDIAAVRALNLFQGSVEDTTGSSQSLAALLNK-CKTPOGQGLANQWIKQPLMDKNRIER	359	
QY	354	LDIQSVSPVEDAALRQDLROH-LKRSIDIERLTHNLKRASLVHVVKLYQSSTVPYIKS	412	
Db	360	LNLVEAPEVDAELRQTQEDLLRRFPDLNLAKFQKQAANLQDCYRLYQGINLPNVIQ	419	
QY	413	VLRHDDQFATLRIERYIDSLEKWSDDNHLNKFGLGVETSDLDQLENGEMYISAYDPN	472	
Db	420	ALEKHGKHKQLLAVFVTPLTDLRSD-PSKFQBMIEITLLMDQVENHEFLVAKPSFDEN	477	
QY	473	LSALKDQEETLERQIHNHLKQTANDLDPDKSLKDKETQFGHVFRITKKEEKPKVRKQL	532	
Db	478	LSELREIMNDLEKKQWQSTLISAARDGLDGPQKIKLDSAGFGYFFRVYTCCEEKVLNR--	535	
QY	533	NSHVIVLETRKDGVKFTYTKLKLGDQPKIVEEVKSCQKELVARVQVTAASFSEVPAGI	592	
Db	536	NKNFSTVDIQNGVKFVNSKUTSLNEEYTKNTEYEEAQDAIVKEIVNISSGIYEPMQTL	595	
QY	593	AGVLAEILDVLLSFADLAASCPTPYTRPNISPPDGTIILEGRHPCVBAQWVNSIPNDC	652	
Db	596	NDVLAQLDAVVSFAHVSNGAPVPYVRPAILEKGQGRILIKASRHACVEQDEIAFIPNDV	655	
QY	653	RLRVGESWFQIITGNMGKSTYIRQGVNVVMAQVGFVPCDNNATISIRDCIFARVQAG	712	
Db	656	YFEKDKQWFHIIITGNMGKSTYIRQGVVMAQVGFVPCDNNATISIRDCIFARVQAG	715	

QY	713	DCOILRGVSTFMOBMLFTASTILKCATDTRSLIIIDELGRGTSTYDGFGLAWAICEHIVBEIK	772
		: :	
Db	716	DSOLKGVSTFMMAEMBLTASILRSATKSDLSLIIDELGRGTSTYDGFGLAWAISVIATKIIG	775
		: :	
QY	773	APTFLFAITHFELHTALANKNGDNHGKNAGIANFVFHAHIDPSNRKLTMLYKVHPGACDQS	832
Db	776	AFCMFATHFELHTALAN-----QIPTVNNLHVTAI--TTBETLTMLYCVKKGVCDQS	825
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QY	833	FGTHVAEAFNPPSPVVVALAREKAASELDEPSPIALIPN-DIKEAAASKR---KREFDRHDVS	888
		: :	
Db	826	FGTHVAELANFPFKHVITECAKQALEEFQYIGESQGYDIMEPAAKCYLERE-----	878
		: :	
QY	889	RGTARARQFIODFAQLPLDKMDPNVRQKLKMKTDL	925
		: :	
Db	879	OGEKIIQEFLSKVKQMPTMSEENITIKLKQLKAEV	915
		: :	

RESULT 8
US-09-512-250C-31
; Sequence 31, Application US/09512250C
; Patent No. 6518042
; GENERAL INFORMATION:
; APPLICANT: Borchert, Torben
; APPLICANT: Pedersen (Executor for Lars Christiansen, deceased), Dennis
; APPLICANT: Vind, Jesper
; TITLE OF INVENTION: A process for Making DNA Libraries In Filamentous Fungal
; TITLE OF INVENTION: No. 6518042el Cloned Gene Involved in the Mismatched Re
; TITLE OF INVENTION: Cells
; FILE REFERENCE: 5718.200-US
; CURRENT APPLICATION NUMBER: US/09/512,250C
; CURRENT FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 31
; LENGTH: 1010
; TYPE: PRT
; ORGANISM: human.p
US-09-512-250C-31

Query Match	37.9%;	Score	1841.5;	DB	4;	Length	1010;
Best Local Similarity	43.0%;	Pred.	No. 2.le-164;				
Matches	403;	Conservative	172;	Mismatches	307;	Indels	55;
Gaps	19;						
QY	14	LKLDAXQAQGFISFFXYTLPKDP--RAVRLPDRDYTSHGDDAFIAETYYHTTALRQLG	72				
DB	85	LQLESAAEVGFVFFQGMPEKPTTVRLPDRGDFYTAHGEDALLAAREVFKTGVIKYM	144				
QY	73	NR--ADALSSVSYSVRNMFETIARDILLERMDRTLLELYEGSGN-----WRLVKSSTPGN	124				
DB	145	PAGAKNLQSVLSSKMNFSFVKDLLLVQYR--VEVYKNRAGNKASKENDWYLAYKASPGN	203				
QY	125	LGSEFEDILFANNEMQNSPIAALAPNFGQCGEVLGGYVDITKRVLGLTEFFLDDSHFTNL	184				
DB	204	LSQFEDILFGNNDMSASIGVGVKMSAVDQQRGVGVYDSIQKLGCLCEFPDNDQFSNL	263				
QY	185	ESALVALGRCELVP--AET--GKSEYRPMFDALSRGCVMWVTERKTEFKGRDLVDQLGRL	242				
DB	264	EALLIQIGPKECVLPQGETAGDMGKLRIQI---IQRGIIILITERKKAADFSTKQIYQDLNRL	320				
QY	243	VKG-----SVEPYRDLVSGPECASGALGCTLSVAELLADESNVGNVTVKQYNLSYM	294				
DB	321	LKGGKGBQNSAVLPME-----NQVAVSSLSAVIKLELLSDSNFGQPELITFDFSQYM	376				
QY	295	RLDLSAAMRALNVME--SKSDANKNFSILGLMNRCTTAGMGKRLHMLWKPLDLVEINCR	353				
DB	377	KLDIAAVRALNIPQGSVEDTTGSQAALINK--CKTPQGRVLNVQWIKOPLADKNRIER	435				
QY	354	LDLVQSFVEDAALRODLRQH--LKRISDIERLTHNLERKASLVHVVKLYQSSTRVPVIKS	412				
DB	436	LNLVAFVDAELURQTLQEDLRLRFPDLNRLAKKFORQANIQDCVRYLQGINQLPNVITQ	495				
QY	413	VLBRHQGFATILRERYIDSLSEKWSDDNHLNKFIGIVETSVLDLQJLENGEYMISSAYDN	472				

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Db 496 ALEHGEHQKLLAVFVPLTDLRS--FSKFOEMIETILDMQVENHEFLVKPSFDPN 553
Qy 473 LSALKDEQETLEROIHNHLKQTANDLDPIDKSLDKETOFQGHVFRITKKEPKVKQL 532
Db 554 LSELEINMDLEKMMQSTLISAARDLGLDPQKQIKLSDSAGFYFRVTCKEEKVLNR-- 611
Qy 533 NSHYVILETRKDGKFTYTKLKLGDQPKQKIVEEYKSCQKELVARVQTAASFSEVFAGI 592
Db 612 KNFSTVDIQKNGVKFTNSLTSLNEEYTKNTEVEEAQDAIVKEIVNISSGYVEPMQTL 671
Qy 593 AGVLAEVLVLLSPADLAASCTPYTRPNISPPDGDIIILEGRHPCVBAQDWNVNSIPND 652
Db 672 NDVLIAQLDAVVSFAHVSNGAEPVYRPAILEKQGRITILKASREACVEQDEIAFIPNDV 731
Qy 653 RLVRGESWFQIITGNMGKSTYIROGVNVLMAQVGSFVPCDNATISIRDCIFARVGAG 712
Db 732 YFEKDKQFHIITGNMGKSTYIRQTGVIVLMAQIGCFVPCSAEVSIVDCIILARVGAG 791
Qy 713 DCQLRGVSTFQMELETAIILKATDRSLIIIDELGRGTSTYDGFGLAWAICEHIVEIK 772
Db 792 DSOLKGVSTFMAEMLETAIILRSATKDSLIIDELGRGTSTYDGFGLAWAISEYIATKIG 851
Qy 773 APTLFATHFHELTALANKNGDHKKNAGIANFHFAHIDPSNRKLTMLYKVHPGACDQS 832
Db 852 AFCMFATHFHELTALAN-----QIPTVNNLHVTL--TTEETLTMLYQVKKGVCDQS 901
Qy 833 FGIHVAEFANPPSVVALAREKASELEDFSPAIIPN-DIKEAASKR---KREFDRHDVS 888
Db 902 FGIHVAELANPKHIVIECAKQALELEEFQVIGESQGVDMPEAKKCYLBER----- 954
Qy 889 RGTARAKQDLQAFQPLDKMDPNVVRKLSKMTDL 925
Db 955 QGEXIOEFLSKVQMPTEENSEENITIKLQAKAEV 991
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RESULT 9

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US-09-512-250C-33
; Sequence 33, Application US/09512250C
; Patent No. 6518042
; GENERAL INFORMATION:
; APPLICANT: Borchert, Torben
; APPLICANT: Pedersen (Executor for Lars Christiansen, deceased), Dennis
; APPLICANT: Vind, Jesper
; TITLE OF INVENTION: A process for Making DNA Libraries in Filamentous Fungal CellsUs
; TITLE OF INVENTION: No. 6518042el Cloned Gene Involved in the Mismatched Repair Syst
; TITLE OF INVENTION: Cells
; FILE REFERENCE: 5718.200-US
; CURRENT APPLICATION NUMBER: US/09/512.250C
; NUMBER FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 33
; LENGTH: 935
; TYPE: PRT
; ORGANISM: mus. p.
US-09-512-250C-33
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Query Match 37.4%; Score 1818.5; DB 4; Length 935;
Best Local Similarity 42.3%; Pred. No. 2.7e-162;
Matches 395; Conservative 173; Mismatches 318; Indels 47; Gaps 18;
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Qy 14 LKLDKAKQAGFLSPFKTLDPKP-RAVRLFDRDDVYVTSHGDDATFAETVYHTTALRLG 72
Db 9 LQLEGAAGVRFEGNPEKPSITVRLFDGRDFTAHGEDALLAAREVFTQGVIKYMG 68
Qy 73 NR-ADAGSSVSVMNMFTIARDILLEMORTLELYEGSGSN-----WRLVKSQGTGPN 124
Db 69 PAGSKTLQSVLVSKMNFESFVKDLLLVFQYR-VEVYKNKAGNKASKENWYLAFAKSPGN 127
Qy 125 LGSFEDILFANNQNSVIAALAPNFQNCCEVGLGYVDITKRVGLTEFLDSDSHNTNL 184
Db 128 LQSFEDILFGNNDNSASVGVNMGIXMAVVDGQRHVGVYVDSTQRKGLCEFPENDQFSNL 187
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Qy 185 ESALVALGCRECLVPA--ETGKSSEYRPMFDAISRCGMVMTERTKTEBPKGRDLVDQLGRL 242
Db 188 EALLIQIGPRECVLPGGETTGDGKLR---QVIQRGGLIITERRADSTKDIQDINRL 244
Qy 243 VKGSV-BFVRDLV---SGFECASGALGCIILSYABELLADSNYNYTVYKQNLNLSYMRIDS 298
Db 245 LKGGKGGQINSAAALPEMENQVAVSSLSAVIKFLELLSDSNFGQFELATDFFSQMKLDM 304
Qy 299 AAMEALNME-SKSDANKFSLFGIMNRTCTAGMGKRLHMLWKQPLLDVSEINCRDLV 357
Db 305 AAVRALNLFGSVEDTTGSSQSLAALANK-KTAQOQRLVNMQIKPLMDRNIERLNLV 363
Qy 358 QSFVEDAALRDLROH-LKRISDIERTLHNERRKASLVHVVKLYQSSTRVPIYKSLER 416
Db 364 EAFVEDSELRSQLEDLLRRPDLNRLAKKFORQAANLQDCYRLYQGINQLPSVIALEK 423
Qy 417 HDGQFATLIIRERYIDSLEKMSDDNHLANKFGLVTSVDLDQLENGEYMISSAYDPNISAL 476
Db 424 YEGRHQALLAVFVTPITLIDLRSD--FSKFQSMIETITLMDQVENHEFLVKPSFDPNLSEL 481
Qy 477 KDEQETLEROIHNHLKQTANDLDPIDKSLDKETOFQGHVFRITKKEPKVKQLNSHY 536
Db 482 REVMDGLEKMMQSTLINAARGLGLDPQKQIKLSDSAGFYFRVTCKEEKVLNR--KNKF 539
Qy 537 IVLETRKDGKFTYTKLKLGDQPKQKIVEEYKSCQKELVARVQTAASFSEVFAGIAGVL 596
Db 540 STVDIQKNGVKFTNSLTSLNEEYTKNKEVEEAQDAIVKEIVNISSGYVEPMQTLNDVL 599
Qy 597 AELDVLLSPADLAASCTPYTRPNISPPDGDIIILEGRHPCVBAQDWNVNSIPNDCLVR 656
Db 600 AHLDAIVSFHVSNAAPVYRPAILEKQGRITILKASREACVEQDEVAIPNDVHPEK 659
Qy 657 GESWFQIITGNMGKSTYIROGVNVLMAQVGSFVPCDNATISIRDCIFARVGACDQL 716
Db 660 DKQMFHIITGNMGKSTYIRQTGVIVLMAQIGCFVPCSAEVSIVDCIILARVGAGDQL 719
Qy 717 RGVSTFQMELETAIILKATDRSLIIIDELGRGTSTYDGFGLAWAICEHIVEIKAPTL 776
Db 720 KGVSTFMAEMLETSILRSATKDSLIIDELGRGTSTYDGFGLAWAISDYIATKIGAFCM 779
Qy 777 FATHFHELTALANKNGDHKKNAGIANFHFAHIDPSNRKLTMLYKVHPGACDQSFGIH 836
Db 780 FATHFHELTALAN-----QIPTVNNLHVTL--TTEETLTMLYQVKKGVCDQSFGIH 829
Qy 837 VAEFANPPSVVALAREKASELEDFSPAIIPNDIKEAASKR---REFDRHDVSRGTA 892
Db 830 VAELANFPRHVIAACAKQALELEEFQVIGTSLGCDDEAPPAKRCLERE-----QGEK 882
Qy 893 RARQFLQDFAQLPLDKMDPNVVRKLSKMTDL 925
Db 883 IILEFLSKVQVPTAMSEESISAKLQAKAEV 915
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RESULT 10

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US-09-512-250C-2
; Sequence 2, Application US/09512250C
; Patent No. 6518042
; GENERAL INFORMATION:
; APPLICANT: Borchert, Torben
; APPLICANT: Pedersen (Executor for Lars Christiansen, deceased), Dennis
; APPLICANT: Vind, Jesper
; TITLE OF INVENTION: A process for Making DNA Libraries in Filamentous Fungal CellsUs
; TITLE OF INVENTION: No. 6518042el Cloned Gene Involved in the Mismatched Repair Syst
; TITLE OF INVENTION: Cells
; FILE REFERENCE: 5718.200-US
; CURRENT APPLICATION NUMBER: US/09/512.250C
; CURRENT FILING DATE: 1999-02-24
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 940
; TYPE: PRT
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Db 751 EMAGLPKEVVVERARALLSAM 770

RESULT 15

US-09-651-656-1
 ; Sequence 1, Application US/09651656
 ; Patent No. 6340566
 ; GENERAL INFORMATION:
 ; APPLICANT: MCCUTHEN-MALONEY, SANDRA
 ; APPLICANT: LAWRENCE LIVERMORE NATIONAL LABORATORY
 ; TITLE OF INVENTION: DETECTION AND QUANTITATION OF SINGLE NUCLEOTIDE
 ; TITLE OF INVENTION: POLYMORPHISMS, DNA SEQUENCE VARIATIONS, DNA MUTATIONS,
 ; TITLE OF INVENTION: DNA DAMAGE AND DNA MISMATCHES
 ; FILE REFERENCE: IL-10689
 ; CURRENT APPLICATION NUMBER: US/09/651,656
 ; CURRENT FILING DATE: 2000-08-29
 ; PRIOR APPLICATION NUMBER: 60/192,764
 ; PRIOR FILING DATE: 2000-03-28
 ; NUMBER OF SEQ ID NOS: 106
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 1
 ; LENGTH: 240
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-651-656-1

Query Match 14.9%; Score 724.5; DB 4; Length 240;
 Best Local Similarity 62.4%; Pred. No. 6e-60;
 Matches 153; Conservative 22; Mismatches 59; Indels 11; Gaps 3;
 Qy 635 RHPCVEAQQDWNSIPNDCRLVRGESWFIITGPNMGKSTYIRQVGVNVLMAQVGSFVPC 694
 Db 2 RHACVEVQDEIATFPNDVYFEKQKQMEHIITGPNMGKSTYIRQVGVNVLMAQVGSFVPC 61
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 Db 122 DGFGLAWAISEYATKIGAFCMFATHEHELTALAN-----QIPTVNNLHVLTAL--TT 171
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 Qy 874 AASKR 878
 Db 232 PAAKK 236

Search completed: April 7, 2004, 10:47:31
 Job time : 27 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 7, 2004, 10:46:01 ; Search time 53 Seconds
(without alignments)
4653.070 Million cell updates/sec

Title: US-10-029-065-2
Perfect score: 4859
Sequence: 1 MNENLEQSKLPELKLDAKO.....KMKTDLDRDAVDHNLQOFF 939

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1071772 seqs, 26263353 residues

Total number of hits satisfying chosen parameters: 1071772

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA:
1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pap.*
2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pap.*
3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pap.*
4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pap.*
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13: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pap.*
14: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pap.*
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18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	ID	Description
1	4859	100.0	939	14	US-10-029-065-2
2	4856	99.9	937	14	US-10-029-065-4
3	3629	74.7	939	14	US-10-270-839-49
4	3082.5	63.4	860	12	US-10-425-114-56470
5	2358	48.5	592	12	US-10-424-599-214104
6	2004.5	41.3	567	12	US-10-424-599-214104
7	1842.5	37.9	934	14	US-10-109-791A-66
8	1841.5	37.9	934	9	US-09-788-657-19
9	1841.5	37.9	934	10	US-09-912-697-10
10	1841.5	37.9	934	10	US-09-760-285-20
11	1841.5	37.9	934	14	US-10-270-839-31
12	1841.5	37.9	934	14	US-10-243-130-11
13	1841.5	37.9	934	14	US-10-371-857-5
14	1841.5	37.9	934	14	US-10-371-634-9
15	1841.5	37.9	934	14	US-10-348-074-7

SUMMARIES

ALIGNMENTS

RESULT 1

US-10-029-065-2
; Sequence 2, Application US/10029065
; Publication No. US20030150024A1
; GENERAL INFORMATION:
; APPLICANT: May, Gregory
; APPLICANT: Baszczyński, Christopher
; APPLICANT: Zhu, Tong
; APPLICANT: Kipp, Peter
; APPLICANT: Mahajan, Pramod
; TITLE OF INVENTION: PLANT MSH2 SEQUENCES AND METHODS OF USE
; FILE REFERENCE: 5839-2 (035839/196219)
; CURRENT APPLICATION NUMBER: US/10/029,065
; CURRENT FILING DATE: 2001-12-20
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
; LENGTH: 939
; TYPE: PRT
; ORGANISM: Nicotiana tabacum
US-10-029-065-2

Query Match 100.0%; Score 4859; DB 14; Length 939;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 939; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNENLEQSKLPELKLDAKOQGFSLPKDPRAVLPDRDYTTSHGDDATFAET 60
Db 1 MNENLEQSKLPELKLDAKOQGFSLPKDPRAVLPDRDYTTSHGDDATFAET 60

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Db 61 YYHTTTALRQLGNRADALSSVSVRNMFETIARDILLERMDRTILEYEGSGSNRLVKSG 120

QY 121 TPGNLGSPEDILFANNEMQNSPVIAALAPNGQNGCEVLGYVDITKRVGLTFLDSDH 180
Db 121 TPGNLGSPEDILFANNEMQNSPVIAALAPNGQNGCEVLGYVDITKRVGLTFLDSDH 180

Sequence 13, Appl
Sequence 277, App
Sequence 4282, A
Sequence 3873, Ap
Sequence 129, App
Sequence 2022, Ap
Sequence 37, Appl
Sequence 65, Appl
Sequence 125, App
Sequence 172, App
Sequence 124, App
Sequence 284633,
Sequence 4999, Ap
Sequence 11322, A
Sequence 12632, A
Sequence 9740, Ap
Sequence 74805, A
Sequence 19983, A
Sequence 12333, A
Sequence 5274, Ap
Sequence 44374, A
Sequence 70970, A
Sequence 11784, A
Sequence 72450, A
Sequence 51818, A
Sequence 52510, A
Sequence 53164, A
Sequence 14767, A
Sequence 2709, Ap
Sequence 13515, A

QY 181 FTLNLSALVAGCRECLVPAETGKSSEYRPMFPAISRCGVWVTERKKTFFKGRDLVQDLG 240
 DB 181 FTLNLSALVAGCRECLVPAETGKSSEYRPMFPAISRCGVWVTERKKTFFKGRDLVQDLG 240
 QY 241 RLKVGSEVPVRLVSGFECASGALGCIISYAEALLADESNYNTVQYNLNSYMLDSAA 300
 DB 241 RLKVGSEVPVRLVSGFECASGALGCIISYAEALLADESNYNTVQYNLNSYMLDSAA 300
 QY 301 MRALNVMESKSDANKNFSLFGLMNRCTAGMGKRLHMLWKOPLLDVEEINCRDLVQSF 360
 DB 301 MRALNVMESKSDANKNFSLFGLMNRCTAGMGKRLHMLWKOPLLDVEEINCRDLVQSF 360
 QY 361 VEDAALRODLRQHLKRIISDIERLTHNLERKRASLVHVVKLYQSSTRVPYIKSVLERHDGQ 420
 DB 361 VEDAALRODLRQHLKRIISDIERLTHNLERKRASLVHVVKLYQSSTRVPYIKSVLERHDGQ 420
 QY 421 FATLRIRYIDSLKWSDDNHLNKFIGLVETSDVDLQLENGEYMISSAYDPNLSALKDEQ 480
 DB 421 FATLRIRYIDSLKWSDDNHLNKFIGLVETSDVDLQLENGEYMISSAYDPNLSALKDEQ 480
 QY 481 ETLERQIHLNHKOTANDLPLIDKSLKLDKETOFGHVFRITKKEPKVKRKQNLNSHYIVLE 540
 DB 481 ETLERQIHLNHKOTANDLPLIDKSLKLDKETOFGHVFRITKKEPKVKRKQNLNSHYIVLE 540
 QY 541 TRKDGVKFTYTKLKLGDQFQKIIVEEYKSCOKELVARVVQTAASSEVPAGTAGVLAEID 600
 DB 541 TRKDGVKFTYTKLKLGDQFQKIIVEEYKSCOKELVARVVQTAASSEVPAGTAGVLAEID 600
 QY 601 VLLSFADLAASCTPTPYTRPNISPPDTGDIILGCRHPCVEAQDWNWSIPNDCLVRGESW 660
 DB 601 VLLSFADLAASCTPTPYTRPNISPPDTGDIILGCRHPCVEAQDWNWSIPNDCLVRGESW 660
 QY 661 FOIITGPNMGKSTYIRQGVNVLMQAQVGSFVPCDNATISIRDCIFARVAGDCQQLRGVS 720
 DB 661 FOIITGPNMGKSTYIRQGVNVLMQAQVGSFVPCDNATISIRDCIFARVAGDCQQLRGVS 720
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 DB 721 TFMQEMLETASILKGATDRSLIILDELGRGTSTYDGFGLAWAICEHIVEIKAPTLFATH 780
 QY 781 FHELTALANKNGDNGHKKNAGIANFHVFAHIDPSNRKLTMLYKVPACDQSGFIHVAEF 840
 DB 781 FHELTALANKNGDNGHKKNAGIANFHVFAHIDPSNRKLTMLYKVPACDQSGFIHVAEF 840
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 DB 841 ANFPSPVVALAREKASELEDSPFIALLPNDIKEAASKRREFDRHDVSRGTARARQFLOD 900
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 DB 901 FAQLPLDKMDPNVVRQKLSKMTDLERDAVDSHWLQOFF 939

RESULT 2

US-10-029-065-4
 ; Sequence 4, Application US/10029065
 ; Publication No. US20030150024A1
 ; GENERAL INFORMATION:
 ; APPLICANT: May, Gregory
 ; APPLICANT: Baszczyński, Christopher
 ; APPLICANT: Zhu, Tong
 ; APPLICANT: Kipp, Peter
 ; APPLICANT: Mahajan, Pranod
 ; TITLE OF INVENTION: PLANT MSH2 SEQUENCES AND METHODS OF USE
 ; FILE REFERENCE: 5939-2 (035839/196219)
 ; CURRENT APPLICATION NUMBER: US/10/029,065
 ; CURRENT FILING DATE: 2001-12-20
 ; NUMBER OF SEQ ID NOS: 42
 ; SOFTWARE: PatentIn version 3.0
 ; SEQ ID NO 4
 ; LENGTH: 939
 ; TYPE: PRT
 ; ORGANISM: Nicotiana tabacum

US-10-029-065-4
 Query Match 99.9%; Score 4856; DB 14; Length 939;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 938; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MNELEQSKLPELKLDAKQAGFLSPFKTLKPKDPAVRVLFDRDRDYTTSHGDDATFIAET 60
 DB 1 MNELEQSKLPELKLDAKQAGFLSPFKTLKPKDPAVRVLFDRDRDYTTSHGDDATFIAET 60
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 DB 61 YYHTTTALRQGNRADALS SVSVSRNMPETIARDILLERMDRTLELYEGSGSNWRLVKS 120
 QY 121 TPNLGSFEDILFANNEMONSPTAALAPNGQCEVGLGVVDITKVLGITTEFLDOSH 180
 DB 121 TPNLGSFEDILFANNEMONSPTAALAPNGQCEVGLGVVDITKVLGITTEFLDOSH 180
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 DB 181 FTLNLSALVAGCRECLVPAETGKSSEYRPMFPAISRCGVWVTERKKTFFKGRDLVQDLG 240
 QY 241 RLKVGSEVPVRLVSGFECASGALGCIISYAEALLADESNYNTVQYNLNSYMLDSAA 300
 DB 241 RLKVGSEVPVRLVSGFECASGALGCIISYAEALLADESNYNTVQYNLNSYMLDSAA 300
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 DB 301 MRALNVMESKSDANKNFSLFGLMNRCTAGMGKRLHMLWKOPLLDVEEINCRDLVQSF 360
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 DB 361 VEDAALRODLRQHLKRIISDIERLTHNLERKRASLVHVVKLYQSSTRVPYIKSVLERHDGQ 420
 QY 421 FATLRIRYIDSLKWSDDNHLNKFIGLVETSDVDLQLENGEYMISSAYDPNLSALKDEQ 480
 DB 421 FATLRIRYIDSLKWSDDNHLNKFIGLVETSDVDLQLENGEYMISSAYDPNLSALKDEQ 480
 QY 481 ETLERQIHLNHKOTANDLPLIDKSLKLDKETOFGHVFRITKKEPKVKRKQNLNSHYIVLE 540
 DB 481 ETLERQIHLNHKOTANDLPLIDKSLKLDKETOFGHVFRITKKEPKVKRKQNLNSHYIVLE 540
 QY 541 TRKDGVKFTYTKLKLGDQFQKIIVEEYKSCOKELVARVVQTAASSEVPAGTAGVLAEID 600
 DB 541 TRKDGVKFTYTKLKLGDQFQKIIVEEYKSCOKELVARVVQTAASSEVPAGTAGVLAEID 600
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 DB 601 VLLSFADLAASCTPTPYTRPNISPPDTGDIILGCRHPCVEAQDWNWSIPNDCLVRGESW 660
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 DB 781 FHELTALANKNGDNGHKKNAGIANFHVFAHIDPSNRKLTMLYKVPACDQSGFIHVAEF 840
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 DB 841 ANFPSPVVALAREKASELEDSPFIALLPNDIKEAASKRREFDRHDVSRGTARARQFLOD 900
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 DB 901 FAQLPLDKMDPNVVRQKLSKMTDLERDAVDSHWLQOFF 939

RESULT 3

US-10-270-839-49

Sequence 49, Application US/10270839
Publication No. US20030143586A1
GENERAL INFORMATION:
APPLICANT: Chao, Qimin
APPLICANT: Grasso, Luigi
APPLICANT: Sassi, Philip M.
APPLICANT: Nicolaides, Nicholas C.
TITLE OF INVENTION: Genetic Hypermutability of Plants for Gene Discovery and Diagnosis
FILE REFERENCE: AG0002US (MOR-0133)
CURRENT APPLICATION NUMBER: US/10/270,839
CURRENT FILING DATE: 2002-10-11
PRIOR FILING DATE: 2001-10-12
NUMBER OF SEQ ID NOS: 129
SOFTWARE: PatentIn version 3.1
SEQ ID NO 49
LENGTH: 937
TYPE: PRT
ORGANISM: Arabidopsis thaliana
US-10-270-839-49

Query Match 74.7%; Score 3629; DB 14; Length 937;
Best Local Similarity 72.4%; Pred. No. 2.7e-303;
Matches 680; Conservative 137; Mismatches 118; Indels 4; Gaps 3;

Qy 1 MNENLEQSKLPKLDKAKQAGFLSPKTLPKDPRAVLRRDRDYTTSHGDDATFAET 60
Db 1 MEGNFEONKULPELKDQAKQAGFLSPKTLPNDRVRRFRDKDYTAHGENSVFAKT 60

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Qy 301 MRALNVESKSDANKNPSLFGIMNRTCTAGMGKRLHMLKQPLLDVEEINCRDLVQSF 360
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Db 361 VEEAGRLQDLRHLKRIISDIERLTHNLERKASLVHVVKLYQSSTRVPYIKSVLERHDGQ 420

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Db 421 FASLISERYLKLKLEALSQDHLGRFIDLVECSVDLDQLENGEYMISSAYDNPNSALKDQX 480

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Db 481 ELLEQQIHELKHKTAEIDLQVDRKALKDKAAQFGHVFRITTKKEPKVKRKLTTQFVLE 540

Qy 541 TRKQGVKFTYTKLKLQDQFOKIVVEYKSCOKELVARVQVTAASFSFVAGIAGVLAELD 600
Db 541 TRKQGVKFTYTKLKLQDQVSVDDYKSCOKELVDRVETVTSFSEFVEDIAGLLSMD 600

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Db 601 VLLSFADLAASCTPYCRPEITSLDAGIVLEGRHPCVEAQDWNFIPNDCRLMRGKSW 660

Qy 661 FOITGPNMGKSTVIROGVNVLMAQVGSFVPCDNALISIRDCIFARVAGDQCLRGVS 720
Db 661 FOITGPNMGKSTPIRQGVIVLMAQVGSFVPCDKASISIRDCIFARVAGDQCLRGVS 720

Qy 721 TFMQEMLETASILKGATDRSLIIIDELGRGTSTYDGFGLAWAICHEHIVEIKAPTLFATH 780
Db 721 TFMQEMLETASILKGATDRSLIIIDELGRGTSTYDGFGLAWAICHEHIVQVRAFTLFATH 780

Qy 781 FHELTALANKGD-NGHKKNAGIANFVFAHIDPSNRKLTMLYKVHPGACDQSGFIHVAE 839
Db 781 FHELTALQAQNSEVSGN-TVGVANFHVSAHIDPESRKLTMLYKVHPGACDQSGFIHVAE 838

Qy 840 FANPPSPVVALAREKASELDEDFSPIALIPNDIKEAASKRKEFDHDSVSGTARARPLQ 899
Db 839 FANFPESVVALAREKAAAELEDFSPSSMIINN-ESGKRKSGREDDPDEVSGAERAHFLK 897

Qy 900 DFAQLPLDKMDENVVROKLSKMKTDLERDAVDSHWLOQF 938
Db 898 EFAAMPDLKMLKDSLQVRMKDELEKDAADCHWLQRF 936

RESULT 4
US-10-425-114-56470
Sequence 56470, Application US/10425114
Publication No. US20040034888A1
GENERAL INFORMATION:
APPLICANT: Liu, Jingdong
APPLICANT: Zhou, Yihua
APPLICANT: Kovalic, David K.
APPLICANT: Screen, Steven E.
APPLICANT: Tabaska, Jack E.
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 56470
LENGTH: 860
TYPE: PRT
ORGANISM: Zea mays
FEATURE:
OTHER INFORMATION: Clone ID: UC-ZMFLB73219B02_FLI.pep
US-10-425-114-56470

Query Match 63.4%; Score 3082.5; DB 12; Length 860;
Best Local Similarity 68.4%; Pred. No. 3.1e-256;
Matches 588; Conservative 119; Mismatches 150; Indels 3; Gaps 3;

Qy 82 SVSRNMFETIARDILLERMORTLELYEGSGSNRLVKSFTGPNIGSFEDILFANNEMQNS 141
Db 2 SVSKAMPETIARNILLERTDCTLELYEGSGSNRLVKSFTGPNIGSFEDILFANNEMQNS 61

Qy 142 PVTAALAPNGQNGCEVGLGVYDITKRVGLTFLDSSHFTNLESALVALGCRECLVPAE 201
Db 62 PVIVALFPACRESQLYVGLSFLDMNTRKGLAEFPDSRFTNVESALVALGCKELCLPAD 121

Qy 202 TGKSEYRPMFADATSRGVVMTERRKTEFKGRDVLQDLGRLVKGSVEPVRDLVSGFECAS 261
Db 122 CEKSIDLNPLODVISNCNVLITKTKKADFKSRDLAQDLGRIIRGSVEPVRDLVSGFDVAL 181

Qy 262 GAGCIIISYAEILLADESNYGNVTKYNLNSYMRIDSAAMRALNVMSKSDANKNFSLFG 321
Db 182 GPLGALLSYAELLADDTNYGNTTEKYNLNCYMRIDSAAMRALNVMSKSDANKNFSLFG 241

Qy 322 LMNPTCTAGCKRLLHMLKQPLLDVEEINCRDLVQSFVEDAALRODLRHLKRIISDIE 381
Db 242 LMNPTCTAGCKRLLHMLKQPLLDVNEINRDLVQSFVEDAALRODLRHLKRIISDID 301

Qy 382 RLTHNLERKKAASLVHVVKLYQSSTRVPYIKSVLERHDGQFATLIRYIDSLKWSDDNH 441
Db 302 RLTHSIRKKSANLPVVKLYQSSRIPIYKILQOYNGQFSTLIRSKFLEPLEEWMKAR 361

Qy 442 LNKFIGLIVETSVDLDQLENGEYMISSAYDNPNSALKDQEQETLERQIHLKHQTANDLIDLP 501
Db 362 FGRFSSSLVETAIQLENGEYRISPLYSSDLGVLDKDELSVVENHNLHVDTSASDLDS 421

QY	502	IDKSLDKDETQFGVHFRITKKEPKVRKQINSHYIVLETRKDGVKFTYTKLKLGDQFQ	561
Db	422	VDKQKLEKGS-LGHVFRMSKKERQVKKLTGSGYIIITRKDGVKFTNSKLNLSQYQ	480
QY	562	KIVREYKSCQKELVARVVOTAASEVSEVPAGIAGVLAEVLVLSFADLAASCPPTTRPNI	621
Db	481	ALFGEYISCKVKVGVVVVRSVGTSEVFENFAAVLSELDVLQSFADLAIVSCPVPVRPDI	540
QY	622	SPPTGDIILGCRHPCVEAQDWVNSIPNDCRLVRGESWFOIITGNMGKGKSTYIROQGV	681
Db	541	TASDEGDTVLGSRHPCLEAQDGVNFIPNDCTLVRGKSWFOIITGNMGKGKSTYIROQGV	600
QY	682	NVLMAQVGSFVPCDNATISIRDCIFARVAGDCQOLRGVSTFMQEMLETASILKGATDRSL	741
Db	601	NVLMAQVGSFVPCQASISVRVDCIFARVAGDCQLHGVSTFMQEMLETASILKGASDKSL	660
QY	742	IIIDELGRTSTYDGFGLMAWICBHIIVEIKAPTLPATHEHELTALANKGD-NGHKNA	800
Db	661	IIIDELGRTSTYDGFGLMAWICBHLMEVTRAPTLPATHEHELTALAHNRNDEHQHISDI	720
QY	801	GIANPHVFAHIDPNSNRKLTMLYKVHPGACDQSGFIHVAAEFANPPSPVALAKASELED	860
Db	721	GVANHVGAHIDPLSRKLTMLYKVPEGACDQSGFIHVAAEFANPFAVVALAKSAELED	780
QY	861	FSPIALIPNDIK-EAASKKEEFDEHVSVCRTARQFLODFALPLDKMDNVVRQKLS	919
Db	781	FSTFTTFSDDLKDEVGSKRKRKVFSPDDITRGAARARUFLFEFALPMDMDGSKILEMAT	840
QY	920	KMKTLDERDAVDSHWLQOFF	939
Db	841	KMKADLQKDAADNPWLQOFF	860

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RESULT 5
US-10-424-599-214104
; Sequence 214104, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa Thomas J
; APPLICANT: Kovalic David K
; APPLICANT: Zhou Yihua
; APPLICANT: Cao Yongwei
; TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53223)B
; CURRENT APPLICATION NUMBER: US/10/424,599
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 214104
; LENGTH: 592
; TYPE: PRT
; ORGANISM: Glycine max
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_35361C.1.pep
US-10-424-599-214104

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Qy	530	KQLNSHYVLETRKDGVKFTYTKLKLGDQFOKIVIEYKSCQCKELVARVVQTAAFSFSEVF	589
Dd	181	KKLNTQFIILLETBKDGVKFTNTKLKLGDQYOQILEEKSCQCKLVDRVVQTAAFTSFVF	240
Qy	590	AGIAGVLAEVLVDLLSPADLAASCTPYTRNISPDDTGDIILEGCRHPCVEAQDWNSIP	649
Dd	241	ESUEIIISLVDLLSPADLAASSCTPYTRPDITSSDEGDIITLEGCRHPCVEAQDWNVFIP	300
Qy	650	NDCRLVRGESWFQIITGPNNMGKSITYRQGVNVLMVAQGSFVPCDNATISIRCIFARV	709
Dd	301	NDCCLVRGTWTFQIITGPNNMGKSTFIROGVNITMAQVGSVFPCDNASISVRDCCIFARV	360
Qy	710	GAGDCOLRGVSTFMQEMLFTASTILKGATDSRLIIDIELGRGTSYDGGGLAWAJCEHIVE	769
Dd	361	GAGDCOLRGVSTFMQEMLFTASTILKGATDSRLIIDIELGRGTSYDGGGLAWAJCEHIVE	420
Qy	770	EIKAPTILFATHHELITALANKNGDNGHKCN-AGIANPHVFAHIIDPSNRKLTMLYKVHPGA	828
Dd	421	VIAKTPLFATHHELITALALEVNSDKOQIVGVANYHVSHIIDSSTFKLTMLYKVPEGA	480
Qy	829	CDQSGFIHVAEFANFPSPVSVALAREKASELEDFSPIAI-IPNDIKEASKRKRFDRHDV	887
Dd	481	CDQSGFIHVAEFANFPSPVSVALAREKAAELEDFPSATSLSNHTTQEVGSKRKRAFEPDDM	540
Qy	888	SRGTRARQLOPFAQLPDLMDENPVVRQKLSMKXTDLERDAVDSHLXQQF	938
Dd	541	SQAARKARQLEAFVALPLETMDKQALQEVKKLTDTLEKDAENCNWLQQF	591
RESULT 6			
US-10-425-114-45750			
; Sequence 45750, Application US/10425114			
; Publication No. US2004003488A1			
; GENERAL INFORMATION:			
; APPLICANT: Liu, Jingdong			
; APPLICANT: Zhou, Yihua			
; APPLICANT: Kovalic, David K.			
; APPLICANT: Screen, Steven E			
; APPLICANT: Tabaska, Jack E			
; APPLICANT: Cao, Yongwei			
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With			
; FILE OF INVENTION: Plants and Uses Thereof for Plant Improvement			
; FILE REFERENCE: 38-21(53313)B			
; CURRENT APPLICATION NUMBER: US/10/425,114			
; CURRENT FILING DATE: 2003-04-28			
; NUMBER OF SEQ ID NOS: 73128			
; SEQ ID NO 45750			
; LENGTH: 567			
; TYPE: PRT			
; ORGANISM: Zea mays			
; FEATURE:			
; OTHER INFORMATION: Clone ID: 701182994_FLI.pep			
US-10-425-114-45750			

[illegible]

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QY 614 TPYRPNISPDGDIILEGCRHPCVEAQDWNISIPNDCLVRGSEWFOIITGNMGGKS 673
Db 240 VPYVRPDITASDEGIVLLSRHPCLEAQDQWFIPIPDCTILVRGSEWFOIITGNMGGKS 299
QY 674 TYIRQGVNVVMAQVGFVPCDNATISIRDCIFARVAGAGCQQLGVSTFQMQLTASIL 733
Db 300 TFIRQGVNVVMAQVGFVPCDNATISIRDCIFARVAGAGCQQLGVSTFQMQLTASIL 359
QY 734 KGATDRSLIILDELGRGTSYDGLGLAWACEHIVEIKAPTLFATHFELTALANKGD 793
Db 360 KGASDKSLIILDELGRGTSYDGLGLAWACEHIMEVTRAPTLFATHFELTALAHEND 419
QY 794 -NGHKKNAGIANFHVFAHIDPSNRKLTMLYKVHPGACDQSGFHVAFANFPSPVVALAR 852
Db 420 EHQHISIDIGVANHVGAIIDPLSKLTMLYKVBPACDQSGFHVAFANFPSPVVALAK 479
QY 853 EKASELEDFSPALIPNDIK-EAASKRFRDHRDVSRTARAFQIQQDPAQLDKMDP 911
Db 480 SKAAELEDFSTPTFSDDLKDEVGSKRVSFDDITRGAARARLFLEEFALPMDEMDG 539
QY 912 NVVRQKLSKMTDLERDAVSHWLOQFF 939
Db 540 SKILEMATKMKADLQKDAADNPWLQOFF 567

RESULT 7
US-10-109-791A-66
; Sequence 66, Application US/10109791A
; Publication No. US2003013878A1
; GENERAL INFORMATION:
; APPLICANT: BiTech Oncologic Corp.
; TITLE OF INVENTION: Functional Genetic Tests of DNA Mismatch Repair
; FILE REFERENCE: EPOL 102 NP
; CURRENT APPLICATION NUMBER: US/10/109,791A
; CURRENT FILING DATE: 2002-09-06
; NUMBER OF SEQ ID NOS: 315
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 66
; LENGTH: 934
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-109-791A-66

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Query Match 37.9%; Score 1842.5; DB 14; Length 934;
Best Local Similarity 43.0%; Pred. No. 2.9e-149;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKAOAGFLSFFKTLKDP-RAVRLFRDRDYTTSHGDDATFIATYTHHTTALRQLG 72
Db 9 LQESAAEVGFVRFFQGMPEKPTTVLFRDGFYTAHGEDALLAAREVFKTQVIKYM 68

QY 73 NR-ADALSSVSSENMPETTARDILLERMORTLEYEGGSN-----WRLVKSCTPGN 124
Db 69 PAGAKNLQSVLVSKMNPESFVKOLLVRYR-VEVYKNRAGNKASKENDWYLAAYKASPGN 127

QY 125 LGSFEDILFANNMONSPVTAALAPNGQNGCEVLGVVDITKRVLGLTFPLDSDSHFTNL 184
Db 128 LSQFEDILFGNDSAGISGVGVKMSAVDQGVGVVDSIQKGLGCEFPDNDQSNL 187

QY 185 ESALVALGCRECLVP-AET-GKSSEYRPMFDALSRGVMVTERKTKTKFGRDLVQDLGRL 242
Db 188 EALLIIGIPKECVLPGETAGDMGKLQI---IQRGILITERKKADFTKDIYQDLNRL 244

QY 243 VKG-----SVEPVRLVSGFECASGALGCLISYAELLADESNYGVYTKQVNLNSYM 294
Db 245 LKGGKQGMNSAVLPENE---NQVAVSSLSAVIKFLELLSDSDSNFQGFELTTDFDSQYM 300

QY 295 RLDSAAARALNVME-SKSDANKFSLGLMNRCTAGMKRLLHMLKQPLLDVVEINCR 353
Db 301 KLDIAAARALNFGSVEDTDSGLAALINK-CKTFQGRVLNVQWTKQIPMDKNRLEER 359

QY 354 LDLVQSFVEDAALRQDLRQH-LKRISDIERTLTHNLERKRASLVHVVKLYSGSTRVPYIKS 412

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Db 360 LNLVEAFVEDAELRQTLQEDLLRFFDLNRLAKKFFQQAANLQDCYELQINQLPVVIQ 419
QY 413 VLFRHQQFATLIRERYIDSLEKWSDDNHLNKIFGLVETSVDDLQLENGEYMISSADPN 472
Db 420 ALEKHGKHQKLLAVFVPLTDLRSD--FSKEQEMIEITLMDQVENHEFLVKPSPDPN 477
QY 473 LSAKDQEQETLQRQIHLNKHQTANDLPLDKSLDKDKETQFGHVPRITKKERPKVKQL 532
Db 478 LSELRIMNDLEKXOMOSTLISAARDIGLDPKQIKLDSQAQFGYFFVTKCKEKKVLRN-- 535
QY 533 NSHYIVLETRKDGKVTYTKLKLIGDQFQKIVVEYKSCQELVARVVQTAASFSEVFAI 592
Db 536 KNFSTVDIQKNGVKFTNSKLTSLNEEYTKNTEYERAAQDAIVKEIVNISSGVVEPMQTL 595
QY 593 AGVLAELDVLLSPADLAASCTPYTTPNPISPPDTGDIILEGCRHPCVEAQDWNISINDC 652
Db 596 NDVLAQLDAVVSFAHVSAGPVPYVPAILEKQGRILLKASRHACVQEODEIAFIENDV 655
QY 653 RLVRGESWFOIITGNMGGKSTVIROGVNVMAQVGFVPCDNATISIRDCIFARVAG 712
Db 656 YFEKDKOMFHIIITGNMGGKSTVIROGVNVMAQVGFVPCDNATISIRDCIFARVAG 715
QY 713 DCQLRGVSTFMQEMLETAETILKATDRSLIILDELGRGTSYDGLGLAWACEHIVEIK 772
Db 716 DSQKGVSTFMAEMLETAETILRSATKDSLIIIDELGRGTSYDGLGLAWAISEVIATKIG 775
QY 773 APTLFPATHFELTALANKGNDGNHKKNAGIANFHVFAHIDPSNRKLTMLYKVHPGACDQ 832
Db 776 AFCMFATHFELTALAN-----QIPTVNNLHVTL--TTBETLTMLYQVKKGVCDDQ 825
QY 833 FGHVAFANFPSPVVALAREKASELEDFSPALIPN-DIKEAASKR---KREFDRHDVS 888
Db 826 FGHVAFANFPSPVVALAREKASELEDFSPALIPN-DIKEAASKR---KREFDRHDVS 888
QY 889 RGTARARQFLQDPAQLDKMDPNVVRQKLSKMTDL 925
Db 879 QGSKIQEFSLKVKQMPFTEMSBENITIKLQKLAEV 915

RESULT 8
US-09-788-657-19
; Sequence 19, Application US/09788657
; Patent No. US20020123149A1
; GENERAL INFORMATION:
; APPLICANT: Nicolaides, Nicholas
; APPLICANT: Sassi, Philip
; APPLICANT: Kinzler, Kenneth
; APPLICANT: Grasso, Luigi
; APPLICANT: Vogelstein, Bert
; TITLE OF INVENTION: Methods for generating hypermutable
; TITLE OF INVENTION: yeast
; FILE REFERENCE: 01107.00097
; CURRENT APPLICATION NUMBER: US/09/788,657
; PRIOR FILING DATE: 2001-02-21
; PRIOR APPLICATION NUMBER: 60/184,336
; PRIOR FILING DATE: 2000-02-23
; NUMBER OF SEQ ID NOS: 25
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 934
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-788-657-19

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Query Match 37.9%; Score 1841.5; DB 9; Length 934;
Best Local Similarity 43.0%; Pred. No. 3.6e-149;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKAOAGFLSFFKTLKDP-RAVRLFRDRDYTTSHGDDATFIATYTHHTTALRQLG 72
Db 9 LQESAAEVGFVRFFQGMPEKPTTVLFRDGFYTAHGEDALLAAREVFKTQVIKYM 68

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QY 73 NR-ADALSSVSRNMFETIARDILLERMDRTLELYEGSGN-----WRLVKSGETPGN 124
Db 69 PAGAKNLQSVLTKMNFESFVKOLLVVRQYR-VEVYKNRAGNKASKENDWYLYKASPGN 127
QY 125 LGSFEDILFANNMOMSPVIAALAPNPGQNGCEVGLGYVDITKRVGLGLTEFLDSDHFTNL 184
Db 128 LSQFEDILFNGNDMSASIGVGVKMSAVDQGRQGVGVDSIQKLGCLCEFPDNDQFSNL 187
QY 185 ESALVALGCRECLVP-AET-GKSEYRPMFEDAI SRCGVMVTERKKTFFKGRDLVDLGR 242
Db 188 EALLIQIGPKCEVLPGETAGDMKLRQI---IQRGGILITERKADFTSKDIYQDLNRL 244
QY 243 VKG-----SVEPVRDLVSGFPCASGALCILSYAELLADESNYNYVVKQVNLNSYM 294
Db 245 LKGGKGEOMSAVLPME-----NOVAVSSLSAVIKFLELLSDSDSNFQFELTFDFFSQYM 300
QY 295 RLDSAAARALNVME-SKSDANKNFSPLGMLNRTCTAGMKRLHMLWKOPILLDVEENCR 353
Db 301 KLDIAAARALNVLFQGSVEDTTGQSQAALLNK-CKTPQGQRLVNMQWIKQPLMDKNRIER 359
QY 354 LDIVQSVFEDAAALRODLRQH-LKRI SDIERLTHNLERKASLVHVVKLYQSTSTVPYKIS 412
Db 360 LNLVEAFVEDAELRQTLQEDLLRRFPDLNLRKAFQQAANLQDCYRLYQINGOLPNVIQ 419
QY 413 VLRRHGDGFATLIRERYIDSLEKMSDDNHLNKFGLVETSVDDLQENGEYMISSADPN 712
Db 419 YFEKDKQMFHIIITGNMGKSTYIRQTVGVILMAQIGCFVPCESAEVSIIVCILLARVAG 715
QY 713 DCQLRGVSTFMQEMLETA SILKGATDRSLIIIDELGRGTSTYDGFGLAWACEHIVEIK 772
Db 716 DSQKGVSTFMAEMLETA SILRSATKDSLIIDELGRGTSTYDGFGLAWAISEYIATKIG 775
QY 773 APTLFATHFHELTALANKNGNGHKNAGIANFVFAHIDPSNRKLTMLYKVHPGACDQS 832
Db 776 AFCEPATHFHELTALAN-----QIPTVNNLHVTAL--TTEETLTMLYQVYKGVCDQS 825
QY 833 FGIHVAELANFPKPVIECAKQALEEBOYIGESQGYDIMEPAACKCYLERE-----878
Db 826 FGIHVAELANFPKPVIECAKQALEEBOYIGESQGYDIMEPAACKCYLERE-----878
QY 889 RCTARARQLODPAQLPDLMDPNVVRQKLSKWKDIL 925
Db 879 QGEKIIQFELSKVKQMPFTEEMSEENITIKLQKAEV 915

```

RESULT 9
 US-09-912-697-10
 ; Sequence 10, Application US/09912697
 ; Publication No. US2003068808A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Nicolaides, Nicholas C
 ; APPLICANT: Sassi, Philip M
 ; APPLICANT: Grasso, Luigi M
 ; APPLICANT: Kline, J Bradford
 ; TITLE OF INVENTION: METHODS FOR GENERATING ANTIBIOTIC RESISTANT MICROBES AND NOVEL
 ; TITLE OF INVENTION: ANTIBIOTICS
 ; FILE REFERENCE: MOR-0040

```

; CURRENT APPLICATION NUMBER: US/09/912,697
; CURRENT FILING DATE: 2001-07-25
; NUMBER OF SEQ ID NOS: 39
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
; LENGTH: 934
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-912-697-10

Query Match      37.9%; Score 1841.5; DB 10; Length 934;
Best Local Similarity 43.0%; Pred. No. 3.6e-149;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDQAQAGFTLFFKTLPKDP-RAVRLFFDRDYTSHGDDATFIARTYHTHTALRQLG 72
Db 9 LQLESAAEVGFVFPGMEKPTTTLVLPDRGDFYTAHGEDALLAAAREVFTQGVKVMG 68
QY 73 NR-ADALSSVSRNMFETIARDILLERMDRTLELYEGSGN-----WRLVKSGETPGN 124
Db 69 PAGAKNLQSVLTKMNFESFVKOLLVVRQYR-VEVYKNRAGNKASKENDWYLYKASPGN 127
QY 125 LGSFEDILFANNMOMSPVIAALAPNPGQNGCEVGLGYVDITKRVGLGLTEFLDSDHFTNL 184
Db 128 LSQFEDILFNGNDMSASIGVGVKMSAVDQGRQGVGVDSIQKLGCLCEFPDNDQFSNL 187
QY 185 ESALVALGCRECLVP-AET-GKSEYRPMFEDAI SRCGVMVTERKKTFFKGRDLVDLGR 242
Db 188 EALLIQIGPKCEVLPGETAGDMKLRQI---IQRGGILITERKADFTSKDIYQDLNRL 244
QY 243 VKG-----SVEPVRDLVSGFPCASGALCILSYAELLADESNYNYVVKQVNLNSYM 294
Db 245 LKGGKGEOMSAVLPME-----NOVAVSSLSAVIKFLELLSDSDSNFQFELTFDFFSQYM 300
QY 295 RLDSAAARALNVME-SKSDANKNFSPLGMLNRTCTAGMKRLHMLWKOPILLDVEENCR 353
Db 301 KLDIAAARALNVLFQGSVEDTTGQSQAALLNK-CKTPQGQRLVNMQWIKQPLMDKNRIER 359
QY 354 LDIVQSVFEDAAALRODLRQH-LKRI SDIERLTHNLERKASLVHVVKLYQSTSTVPYKIS 412
Db 360 LNLVEAFVEDAELRQTLQEDLLRRFPDLNLRKAFQQAANLQDCYRLYQINGOLPNVIQ 419
QY 413 VLRRHGDGFATLIRERYIDSLEKMSDDNHLNKFGLVETSVDDLQENGEYMISSADPN 472
Db 420 ALEXHEGKHQKLLAVFVPLTDLRSD--FSKQEMIEITLDMQVENHEFLVPSFDPN 477
QY 473 LSALKDQOETLERQIHNHKGATANDLPI DKSLKDKETQFGHVERITKKEEPKVRQL 532
Db 478 LSELREIMNDLEKMQSTLISAARDLGLDPGKQIKLSSAQFGYFRVTCKEKVLRN--535
QY 533 NSHYVILETRKDGKVFYTKLKLGLDQFQKIVBEEKSCQKELVARVQVTAASFSEVFAGI 592
Db 536 NKNFSTVDIQNGVKFTNSKLTSLNEEYTKNTEYEEAQAQDAI VKEIVNISSGYVEPMQTL 595
QY 593 AGVLAELDVLSFADLAASCTPYTRPNISPDPTGDIILEGCRHPCVBAQDWNVSNIDNC 652
Db 596 NDVLAQLDAVVSFAHVSNGAPVYVRPALEKGGQRIILKASRHACVEVQDEIAFIPNDV 655
QY 653 RLVRGESWFQIITGNMGKSTYIRQGVNVLMAQVGSFVPCDNATISIRDCIFARVAG 712
Db 656 YFEKDKQMFHIIITGNMGKSTYIRQTVGVILMAQIGCFVPCESAEVSIIVCILLARVAG 715
QY 713 DCQLRGVSTFMQEMLETA SILKGATDRSLIIIDELGRGTSTYDGFGLAWACEHIVEIK 772
Db 716 DSQKGVSTFMAEMLETA SILRSATKDSLIIDELGRGTSTYDGFGLAWAISEYIATKIG 775
QY 773 APTLFATHFHELTALANKNGNGHKNAGIANFVFAHIDPSNRKLTMLYKVHPGACDQS 832
Db 776 AFCEPATHFHELTALAN-----QIPTVNNLHVTAL--TTEETLTMLYQVYKGVCDQS 825
QY 833 FGIHVAELANFPKPVIECAKQALEEBOYIGESQGYDIMEPAACKCYLERE-----878
Db 826 FGIHVAELANFPKPVIECAKQALEEBOYIGESQGYDIMEPAACKCYLERE-----878

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QY 354 LDVQSFEVDAALQDLROH-LKRIISDIERLTHNLERKRASLVHVVKLYQSSTRVPIYKS 412
Db 360 LNLVEAFVDAELQTLQEDLRRFPDLNLAKKFORQAANLQDCYRLYGQINQLPNVQ 419
QY 413 VLEHDCQFATLIRERYIDSLEKSDDDHNLKFTGLVETSDVLDLENGEYMSISSADPN 472
Db 420 ALEHKGHOKLALLAVFTPLTDLRSD--FSKFOEMIETTLDMQOVENHEFLVPSFDPN 477
QY 473 LSALKDEQETLEROIHNHKTANDLDPIDKSLDKETQGHVFRITKKEEPEKVRKQL 532
Db 478 LSEUREINWDLKMQWSTLISAARDLGLDPKQKILDSQAQGYFFVTCCKEVLNR-- 535
QY 533 NSHYVILETRKDGKFTYTKLKLGDQFKIIEYKSCQKELVARVQTAASFEVFAGI 592
Db 536 NKNFSTVDIQKGVKFTNSKLTSLNEEYTKNTEYEAAQDAIYKVINISSGYVEPMQTL 595
QY 593 AGVLAEDVLSPADLAASCTPYTRNISPDPDGDIILEGCRHPCVEAQDWNSIPNDC 652
Db 596 NDVLAQLDAVVSFAHVSNGAPVYRPALEKQGRILKASRHACVEVQDEIAFIPNDV 655
QY 653 RLVRGESWFOITGNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 712
Db 656 YFEKDKQMFHITGNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 715
QY 713 DCQLRGVSTFMOEMLETSILKGAIDRSLLIIDLGRGTSTYDGLAWAICEHIVEIK 772
Db 716 DSQKGVSTFMAEMLETSILRSATKDSLLIIDLGRGTSTYDGLAWAISEYIATKIG 775
QY 773 APTLFATHFHELTALANKGDNHKKAGIANFHVFAHIDPSNRKLTWLYKHPGACDQS 832
Db 776 AFCMFATHFHELTALAN-----QIPTVNNLHVTL--TTEETLTMLYQVKGVCDCQS 825
QY 833 FGIHVAEPANFPSPVVALAREKASELEDFSPAIIPN-DIKEAASKR---KREDFRHDVS 888
Db 826 FGIHVAELANFPKHVIECAKQKALEEFOYIGESQGVYDIMEPAKCKYLERE----- 878
QY 889 RGTARARQLODFAQLPLDKMDPNVVRKLSKMTDL 925
Db 879 QGEKIIQBFSLSKVKQMPFTEEMSEENITIKLKQKAEV 915

RESULT 12
US-10-243-130-11
; Sequence 11, Application US/10243130
; Publication No. US20030143682A1
; GENERAL INFORMATION:
; APPLICANT: Grasso, Luigi
; APPLICANT: Sasso, Philip M.
; TITLE OF INVENTION: ANTIBODIES AND METHODS FOR GENERATING GENETICALLY ALTERED
; FILE REFERENCE: MOR-130
; CURRENT APPLICATION NUMBER: US/10/243,130
; CURRENT FILING DATE: 2002-09-13
; PRIOR APPLICATION NUMBER: 09/707,468
; PRIOR FILING DATE: 2000-11-07
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 11
; LENGTH: 934
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-243-130-11

Query Match 37.9%; Score 1841.5; DB 14; Length 934;
Best Local Similarity 43.0%; Pred. No. 3.6e-149;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKAAQAGFLSFFKTLKDP--RAVRLFRDRDYTSHGDDATFTTAETYYHTTALRQIG 72
Db 9 LQLESAAEYGVFRFFQGMPEKPTTVRLFRDGRDGYTAHGEDALLAAREVFKTGQVYKMG 68
QY 73 NR-ADALSSVSVRNMFTIARDILLERMDRTLLEYEGSGSN-----WRLVKSGTGN 124

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Db 69 PAGAKNLQSVTLKMFNFESVFKDILLVRYQR--VEVYKRNAGNKASKENDWYLAISKASPGN 127
QY 125 LGSFEDILFANNMQNSPVIAAALAPNFGQGVGLYVDITKRVLGLTEBFLDDSHFTNL 184
Db 128 LSQFEDILFNGNDMSASIGVGVKMSADQQRQGVGVDSIQKGLGCEFFDNDQFNSL 187
QY 185 ESALVALGCRECLVP-AET-GKSSEYRPMFDALSRGVMVYTERKTKPKGRDLDVQDGLRL 242
Db 188 EALLIIGPKCEVLPGGETAGDMGLRQI---IQRGGILITERKKADFKDKIYQDLNRL 244
QY 243 VKG-----SYEPVDLVSGFECAGLGCILSYAELLADESNYNYTVKQYNLSYM 294
Db 245 LKGGKKGQMSAVLPENE---NQAVVSSLSAVIKFLELLSDSNFQCFELTTFDFSOYM 300
QY 295 RLDSAAARLNVMB-SKSDANKNPSLFGMLNRTCTAGMKRLLHMLKQPLLDVEENCR 353
Db 301 KLDIAVAVRALNLFQGSVEDITGSSLAALLNK-CKTPQGOQLVNVQWIKQPLMDKXRIEER 359
QY 354 LDVQSFEVDAALQDLROH-LKRIISDIERLTHNLERKRASLVHVVKLYQSSTRVPIYKS 412
Db 360 LNLVEAFVDAELQTLQEDLRRFPDLNLAKKFORQAANLQDCYRLYGQINQLPNVQ 419
QY 413 VLEHDCQFATLIRERYIDSLEKSDDDHNLKFTGLVETSDVLDLENGEYMSISSADPN 472
Db 420 ALEHKGHOKLALLAVFTPLTDLRSD--FSKFOEMIETTLDMQOVENHEFLVPSFDPN 477
QY 473 LSALKDEQETLEROIHNHKTANDLDPIDKSLDKETQGHVFRITKKEEPEKVRKQL 532
Db 478 LSEUREINWDLKMQWSTLISAARDLGLDPKQKILDSQAQGYFFVTCCKEVLNR-- 535
QY 533 NSHYVILETRKDGKFTYTKLKLGDQFKIIEYKSCQKELVARVQTAASFEVFAGI 592
Db 536 NKNFSTVDIQKGVKFTNSKLTSLNEEYTKNTEYEAAQDAIYKVINISSGYVEPMQTL 595
QY 593 AGVLAEDVLSPADLAASCTPYTRNISPDPDGDIILEGCRHPCVEAQDWNSIPNDC 652
Db 596 NDVLAQLDAVVSFAHVSNGAPVYRPALEKQGRILKASRHACVEVQDEIAFIPNDV 655
QY 653 RLVRGESWFOITGNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 712
Db 656 YFEKDKQMFHITGNMGKSTYIRQGVNVLMQVGSFVPCDNATISIRDCIFARVAG 715
QY 713 DCQLRGVSTFMOEMLETSILKGAIDRSLLIIDLGRGTSTYDGLAWAICEHIVEIK 772
Db 716 DSQKGVSTFMAEMLETSILRSATKDSLLIIDLGRGTSTYDGLAWAISEYIATKIG 775
QY 773 APTLFATHFHELTALANKGDNHKKAGIANFHVFAHIDPSNRKLTWLYKHPGACDQS 832
Db 776 AFCMFATHFHELTALAN-----QIPTVNNLHVTL--TTEETLTMLYQVKGVCDCQS 825
QY 833 FGIHVAEPANFPSPVVALAREKASELEDFSPAIIPN-DIKEAASKR---KREDFRHDVS 888
Db 826 FGIHVAELANFPKHVIECAKQKALEEFOYIGESQGVYDIMEPAKCKYLERE----- 878
QY 889 RGTARARQLODFAQLPLDKMDPNVVRKLSKMTDL 925
Db 879 QGEKIIQBFSLSKVKQMPFTEEMSEENITIKLKQKAEV 915

RESULT 13
US-10-371-857-5
; Sequence 5, Application US/10371857
; Publication No. US20030165468A1
; GENERAL INFORMATION:
; APPLICANT: Grasso, Luigi
; APPLICANT: Nicolaides, Nicholas C.
; APPLICANT: Sasso, Philip M.
; TITLE OF INVENTION: Regulated Vectors For Controlling DNA Hypermutability in
; TITLE OF INVENTION: Eukaryotic Cells
; FILE REFERENCE: FT0004 US-MOR-0144
; CURRENT APPLICATION NUMBER: US/10/371,857
; CURRENT FILING DATE: 2003-02-21

```

; PRIOR APPLICATION NUMBER: 60/358,602
 ; PRIOR FILING DATE: 2002-02-21
 ; NUMBER OF SEQ ID NOS: 26
 ; SOFTWARE: Patent in version 3.2
 ; SEQ ID NO 5
 ; LENGTH: 934
 ; TYPE: PRN
 ; ORGANISM: Homo sapiens
 US-10-371-857-5

Query Match 37.9%; Score 1841.5; DB 14; Length 934;
 Best Local Similarity 43.0%; Pred. No. 3.6e-149;
 Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY	14	LKLDKAOAQQFLSFFKTLPKDP-RAVRLPDRDYTHSHGDDAFIATYHTTALRQLG	72
Db	9	LQESAAEVGFVRFQGMPEKPTTTLVRLPDRGDFYTAHGEDALLAAREVFKTGVIKYM	68
QY	73	NR-ADALSVSVSRNMFTIARDILLERMDRTLELYEGSGN-----NRLVKSGETPGN	124
Db	69	PAGAKNLQSVVLSKMFESFVKDILLVRQYR-VVYKRNAGNKASKENDWYLAJKASPGN	127
QY	125	LGSEFEDILFANNMNSPVTAAALAPNFGQNGCVGLGYDITKRVLGTLTFLDSDSHFTNL	184
Db	128	LSQFEDILFNGNDMSASIGVGVKMSAVDQORQVGVYVDSIQKGLCEFPDNDQPSNL	187
QY	185	ESALVALGCECLVP-AET-GKSEYRPMFDAISRCGVMTYRKTKTEFKGRDLVDLGR	242
Db	188	EALLIQTGPKECVLPGETAGDMGKLRQI---IQRGILITERKADFKSTKDIYQDLNRL	244
QY	243	VKG-----SVEPVRLVSGFECASGALGCILSYAELLADESNYGNVTVKYNLSYM	294
Db	245	LKGGKGMNSAVLPENE-----NOVAVSSLSAVIKFLELLSDSDSNFQFELTFDFSQYM	300
QY	295	RLDSAAARALNVME-SKSDANKNPSFLGNMRTCTAGMKRLLHMLKQPLLDVEEINCR	353
Db	301	KLDIAAARALNLFQGSVEDTTGSQSLAALLNK-CKTPQGRVYNQWIKQPLMDKNRIEER	359
QY	354	LDLVQSVFEDAAALRQDLRQH-LKRISDIERLTHNLERKASLVHVVKLYQSSRTPVPIKS	412
Db	360	LNLEAFVEADAEALRQTLQEDLLRRFPDLNRLAKFKFQQAANLQCYRLYGINOLPNVIQ	419
QY	413	VLERHDOFATLIRERYIDSLEKMSDDNHLNKFGLVETSDLDLNGEVMISAYDPN	472
Db	420	ALEKHEGKHQLLAVFVPTLDRSD--FSKQEMIEETLDMQOVNHEFLVKPSFDPN	477
QY	473	LSALKDQFETLERQHNLHKTANDLPLDKSLKDKETQFGHVFRTIKKEPKVRKQL	532
Db	478	LSELREIMNDLEKKNQSTLISAARDLGLDPGKQIKLDSQAQFGYFRVTCKEEKVLN--	535
QY	533	NSHYIVLETRKQGVKFTYTKLKLGDQFKIVEYKSCQKELVARVQTAASFSEVFAGI	592
Db	536	NKNFSTVDIQKNGVKFTNSKLTSLNEEYTKNKTBYEAAQDAIVKEIYNISSGYVEPMQTL	595
QY	593	AGVLAELDVLISFADLAASCTPYTRNISPDPDGDILLEGCRPCVCAQDAWNISIPND	652
Db	596	NDVLAQLDAVVSFAHVSNGAPVVRPALEKGGRIILKASRHACVQDEIAFINDV	655
QY	653	RLVRGESNFIITGNNGKSTYIRQGVNVLMAQVGSFVPCDNATISIRDCIFARVAG	712
Db	656	YFEKDKMFHITGNMGKSTYIRQGVVILMAQIGCFVPCSAEVSIVDCILARVAG	715
QY	713	DCQLRGVSTMOEMLTASILKGTATDRLIILDELGRTSYDGFGLAWACEHIVBEIK	772
Db	716	DSQKGVSTFMAEMLTASILRSATKQSLIILDELGRTSYDGFGLAWAISEYATKIG	775
QY	773	APTFLAFHFELTALANKNGNKGKKNAGIAHFVFAHIDPSNRKLTMLYKVPFGACDQS	832
Db	776	AFCHFAHFELTALAN-----QITVANNLHVTA--TTEETLWLYQVKGVCDS	825
QY	833	FGIIVAEFANPPSPVVALAREKASELEDFSPATIPN-DIKEASKR---KREFDRHDVS	888
Db	826	FGIIVAEALANFPKHIECAKQALELEBFQVIGBSQGYDIMEPAKCKYLERE-----	878

QY	889	RGTARARQFLQDAQPLDKMDENVVRQKLSKMKTDL	925
Db	879	QGEKIIOEFLSKVKQMPFTEEMSEENITIKLKQAKAEV	915

RESULT 14

US-10-371-634-9
 ; Sequence 9, Application US/10371634
 ; Publication No. US20030170895A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Morphotek Inc.
 ; APPLICANT: Grasso, Luigi
 ; APPLICANT: Nicolaides, Nicholas C.
 ; APPLICANT: Sasse, Philip M.
 ; TITLE OF INVENTION: Methods of Making Hypermutable Cells Using PMSR Homologs
 ; FILE REFERENCE: FT0005 US (MOR-0146)
 ; CURRENT APPLICATION NUMBER: US/10/371,634
 ; CURRENT FILING DATE: 2003-02-21
 ; PRIOR APPLICATION NUMBER: 60/358,578
 ; PRIOR FILING DATE: 2002-02-21
 ; NUMBER OF SEQ ID NOS: 48
 ; SOFTWARE: Patent in version 3.2
 ; SEQ ID NO 9
 ; LENGTH: 934
 ; TYPE: PRN
 ; ORGANISM: Homo sapiens
 US-10-371-634-9

Query Match 37.9%; Score 1841.5; DB 14; Length 934;
 Best Local Similarity 43.0%; Pred. No. 3.6e-149;
 Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY	14	LKLDKAOAQQFLSFFKTLPKDP-RAVRLPDRDYTHSHGDDAFIATYHTTALRQLG	72
Db	9	LQESAAEVGFVRFQGMPEKPTTTLVRLPDRGDFYTAHGEDALLAAREVFKTGVIKYM	68
QY	73	NR-ADALSVSVSRNMFTIARDILLERMDRTLELYEGSGN-----NRLVKSGETPGN	124
Db	69	PAGAKNLQSVVLSKMFESFVKDILLVRQYR-VVYKRNAGNKASKENDWYLAJKASPGN	127
QY	125	LGSEFEDILFANNMNSPVTAAALAPNFGQNGCVGLGYDITKRVLGTLTFLDSDSHFTNL	184
Db	128	LSQFEDILFNGNDMSASIGVGVKMSAVDQORQVGVYVDSIQKGLCEFPDNDQPSNL	187
QY	185	ESALVALGCECLVP-AET-GKSEYRPMFDAISRCGVMTYRKTKTEFKGRDLVDLGR	242
Db	188	EALLIQTGPKECVLPGETAGDMGKLRQI---IQRGILITERKADFKSTKDIYQDLNRL	244
QY	243	VKG-----SVEPVRLVSGFECASGALGCILSYAELLADESNYGNVTVKYNLSYM	294
Db	245	LKGGKGMNSAVLPENE-----NOVAVSSLSAVIKFLELLSDSDSNFQFELTFDFSQYM	300
QY	295	RLDSAAARALNVME-SKSDANKNPSFLGNMRTCTAGMKRLLHMLKQPLLDVEEINCR	353
Db	301	KLDIAAARALNLFQGSVEDTTGSQSLAALLNK-CKTPQGRVYNQWIKQPLMDKNRIEER	359
QY	354	LDLVQSVFEDAAALRQDLRQH-LKRISDIERLTHNLERKASLVHVVKLYQSSRTPVPIKS	412
Db	360	LNLEAFVEADAEALRQTLQEDLLRRFPDLNRLAKFKFQQAANLQCYRLYGINOLPNVIQ	419
QY	413	VLERHDOFATLIRERYIDSLEKMSDDNHLNKFGLVETSDLDLNGEVMISAYDPN	472
Db	420	ALEKHEGKHQLLAVFVPTLDRSD--FSKQEMIEETLDMQOVNHEFLVKPSFDPN	477
QY	473	LSALKDQFETLERQHNLHKTANDLPLDKSLKDKETQFGHVFRTIKKEPKVRKQL	532
Db	478	LSELREIMNDLEKKNQSTLISAARDLGLDPGKQIKLDSQAQFGYFRVTCKEEKVLN--	535
QY	533	NSHYIVLETRKQGVKFTYTKLKLGDQFKIVEYKSCQKELVARVQTAASFSEVFAGI	592
Db	536	NKNFSTVDIQKNGVKFTNSKLTSLNEEYTKNKTBYEAAQDAIVKEIYNISSGYVEPMQTL	595
QY	593	AGVLAELDVLISFADLAASCTPYTRNISPDPDGDILLEGCRPCVCAQDAWNISIPND	652
Db	596	NDVLAQLDAVVSFAHVSNGAPVVRPALEKGGRIILKASRHACVQDEIAFINDV	655
QY	653	RLVRGESNFIITGNNGKSTYIRQGVNVLMAQVGSFVPCDNATISIRDCIFARVAG	712
Db	656	YFEKDKMFHITGNMGKSTYIRQGVVILMAQIGCFVPCSAEVSIVDCILARVAG	715
QY	713	DCQLRGVSTMOEMLTASILKGTATDRLIILDELGRTSYDGFGLAWACEHIVBEIK	772
Db	716	DSQKGVSTFMAEMLTASILRSATKQSLIILDELGRTSYDGFGLAWAISEYATKIG	775
QY	773	APTFLAFHFELTALANKNGNKGKKNAGIAHFVFAHIDPSNRKLTMLYKVPFGACDQS	832
Db	776	AFCHFAHFELTALAN-----QITVANNLHVTA--TTEETLWLYQVKGVCDS	825
QY	833	FGIIVAEFANPPSPVVALAREKASELEDFSPATIPN-DIKEASKR---KREFDRHDVS	888
Db	826	FGIIVAEALANFPKHIECAKQALELEBFQVIGBSQGYDIMEPAKCKYLERE-----	878

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QY 593 AGVLAELDVLLSFADLAASCTPTPTRNISPPDGTGDIILEGCRHPCVCAQDWNASIPNDC 652
Db 596 NDVLAQLDAVVSFAHVSNGAPVVPVPAILEKGGRIILKASRHACVEVQDEIAFIENDV 655
QY 653 RLVRGESWFOIITGPNMGKSTYIRQGVNVVLMQVGSFVPCDNATISIRDCIFARVGAG 712
Db 656 YFEKDKQMFHIIITGPNMGKSTYIRQGVNVVLMQVGSFVPCDNATISIRDCIFARVGAG 715
QY 713 DCQLRGVSTFMAEMLETASILKGAIDRSLLIILDELGRGTSYDGFGLAWAICEHIVEIK 772
Db 716 DSQKGVSTFMAEMLETASILKGAIDRSLLIILDELGRGTSYDGFGLAWAICEHIVEIK 775
QY 773 APTLFATHFHELTALANKNGDHKKNAGIANFHVFAHIDPSNRKLTMLYKVFHPCACDQS 832
Db 776 AFCMFATHFHELTALANKNGDHKKNAGIANFHVFAHIDPSNRKLTMLYKVFHPCACDQS 835
QY 833 FGIHVAEFANFPSPVVALAREKASELEDFSPALIPN-DIKEAASKR---KREFDRHDVS 888
Db 826 FGIHVAELANFPKHVIECAKQALEEFOYIGBSQGYDIMEPAKCKYLRE----- 878
QY 889 RGTARARQFLODFAQLPDKMDNPNVRQKSKMKTDL 925
Db 879 QGEKIIQEFLSKVQKMPFTESEENITIKLKQAKAEV 915

RESULT 15
US-10-348-074-7
; Sequence 7, Application US/10348074
; Publication No. US20030176386A1
; GENERAL INFORMATION:
; APPLICANT: Morphotek Inc.
; APPLICANT: Grasso, Luigi
; APPLICANT: Kline, J. Bradford
; APPLICANT: Nicolaides, Nicholas C.
; APPLICANT: Sasse, Philip M.
; TITLE OF INVENTION: Method for Generating Engineered Cells for Locus Specific Gene
; FILE OF INVENTION: Regulation and Analysis
; FILE REFERENCE: MG0003 US (MOR-0140)
; CURRENT APPLICATION NUMBER: US/10/348,074
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/349,565
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 47
; SOFTWARE: Patent in version 3.2
; SEQ ID NO 7
; LENGTH: 934
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-348-074-7

Query Match 37.9%; Score 1841.5; DB 14; Length 934;
Best Local Similarity 43.0%; Pred. No. 3.6e-149;
Matches 403; Conservative 172; Mismatches 307; Indels 55; Gaps 19;

QY 14 LKLDKQAGGFLSPFKTLPKDP-RAVRLFDRDYTSRGDDATFIAETYYHTTALROLG 72
Db 9 LQESAEVGVFRFQGMPEKPTTVRLFDGRDFTAHGEDALLAAREVFTQGVIKYMG 68
QY 73 NR-ADALSSVSRNWEETIARDILERMDRLELYEGSGSN-----WRLVKSGETPN 124
Db 69 PAGAKNLSVLSKNWFESFVKDLLLVQYR-VEVYKRNAGKASKENDWYLAYKASPN 127
QY 125 LGSFEDILFANNEMQNSPVIALAPNFGQNGCEVGLYVDITKRVLGTEFLDDSHFTNL 184
Db 128 LSQFEDILFGNNDMSASIGVGVKMSAVDQGVGVGVDSIQRLKGLCEPDDNQFSNL 187
QY 185 ESALVALGCRBCLVP-AET-GKSSYRPMFDAISRCGVWVTERKTEFKGRDLVDLGR 242
Db 188 EALLIQIGPKGECVLPGETAGDMGKLRI---IQRGGILITERKKADEFSTKDIYQDLNRL 244
QY 243 VKG-----SVEPRLDVSFECASGALGCLISYAEILLADESNYGNVTVKYNLSYM 294
Db 245 LKGGKGEQMNNAVPEME-----NQVASSLSAVIKFLELLSDSDSNFGQFELTTFDFSQYM 300
```

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QY 295 RLDSAAARALNVME-SKSDANKNPSFLGIMNRTCTAGMKRLLHMLWKQPLLDVEEINCR 353
Db 301 KLDIAAVALNLFGQSVEDTTGQSLLAALNK-CKTPQGQRLVNVQWIKQPLMDKNRIEER 359
QY 354 LDIVQSVEDDAALRQDLROH-LKRSIDIERLTHNLKRASLVHVVKLYQSSTVPYIKS 412
Db 360 LNLVEAEVDEALRQTLQEDLLRRFPDLNRLAKKFORQAANLQDCVLYQINGQLPNVIQ 419
QY 413 VLREHDSQFATLIRERYIDSLKESWSDNHNKFTGLVETSDVLDQLENGEYMISSAYDEN 472
Db 420 ALEKHGKHQKLLLAIVETPLTDLRS--FSKFOEMIETITLMDQVNHFLVPSPDEN 477
QY 473 LSALKDQSETLERQIHNHLKQTANDLPDKSLKDKETQFGHVFRITTKBEPKVRKQL 532
Db 478 LSELREIMNDLEKQKQSTLSAARDLGLDPGKIKLDSQAQFGYFPVTCCKEKLRLN-- 535
QY 533 NSHYVILETRKDGKVFYTKLKGIDQFQKIVBEYKSCQELVARVVTQTAASFSEVAGI 592
Db 536 NKNFSTVDIQKNGYKFTNSKLTSLNEEYTKNTEYEEAQAQDAIVKEIYVNISSGYVPMQTL 595
QY 593 AGVLAELDVLLSFADLAASCTPTPTRNISPPDGTGDIILEGCRHPCVCAQDWNASIPNDC 652
Db 596 NDVLAQLDAVVSFAHVSNGAPVVPVPAILEKGGRIILKASRHACVEVQDEIAFIENDV 655
QY 653 RLVRGESWFOIITGPNMGKSTYIRQGVNVVLMQVGSFVPCDNATISIRDCIFARVGAG 712
Db 656 YFEKDKQMFHIIITGPNMGKSTYIRQGVNVVLMQVGSFVPCDNATISIRDCIFARVGAG 715
QY 713 DCQLRGVSTFMAEMLETASILKGAIDRSLLIILDELGRGTSYDGFGLAWAICEHIVEIK 772
Db 716 DSQKGVSTFMAEMLETASILKGAIDRSLLIILDELGRGTSYDGFGLAWAICEHIVEIK 775
QY 773 APTLFATHFHELTALANKNGDHKKNAGIANFHVFAHIDPSNRKLTMLYKVFHPCACDQS 832
Db 776 AFCMFATHFHELTALANKNGDHKKNAGIANFHVFAHIDPSNRKLTMLYKVFHPCACDQS 835
QY 833 FGIHVAEFANFPSPVVALAREKASELEDFSPALIPN-DIKEAASKR---KREFDRHDVS 888
Db 826 FGIHVAELANFPKHVIECAKQALEEFOYIGBSQGYDIMEPAKCKYLRE----- 878
QY 889 RGTARARQFLODFAQLPDKMDNPNVRQKSKMKTDL 925
Db 879 QGEKIIQEFLSKVQKMPFTESEENITIKLKQAKAEV 915
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Job time : 56 secs

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OM nucleic - nucleic search, using sw model

Run on: April 9, 2004, 05:00:27 ; Search time 205 Seconds
(without alignments)
8210.566 Million cell updates/sec

Title: US-10-029-065-1

Perfect score: 3033

Sequence: 1 ataaaggttaagaaaaa.....tatcttatatggtcaaaaa 3033

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 682709 seqs, 277475446 residues

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

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4: /cgm2_6/ptodata/2/ina/6B.COMB.seq:*

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6: /cgm2_6/ptodata/2/ina/backfiles.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	420.8	13.9	2805	4	US-09-651-656-4
2	420.8	13.9	2805	4	US-09-650-855-4
3	420.8	13.9	2947	1	US-08-457-176-1
4	420.8	13.9	2947	1	US-08-457-176-1
5	420.8	13.9	2947	4	US-09-220-132-8
6	420.8	13.9	3145	4	US-09-708-200-14
7	420.8	13.9	3145	4	US-09-788-657-9
8	335	11.0	3823	4	US-09-512-250C-1
9	234	7.7	723	4	US-09-651-656-2
10	234	7.7	723	4	US-09-650-855-2
11	136.8	4.5	3159	4	US-08-956-171E-231
12	135.8	4.5	3754	2	US-08-743-637B-31
13	135.8	4.5	3754	3	US-08-526-840B-31
14	135.8	4.5	7760	4	US-08-961-527-63
15	132.8	4.4	2625	4	US-09-543-681A-2786
16	131.8	4.3	1230025	4	US-09-198-452A-1
17	127	4.2	2676	4	US-09-134-001C-2076
18	124.8	4.1	2676	4	US-09-328-352-2511
19	122.6	4.0	2658	4	US-03-107-532A-1450
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22	122	4.0	1830121	4	US-09-557-884-1
23	122	4.0	1830121	4	US-09-643-990A-1
24	121.4	4.0	2577	4	US-09-134-000C-2023
25	120.6	4.0	2568	2	US-08-468-558-1
26	120.6	4.0	2568	3	US-08-676-444-1
27	106	3.5	3093	2	US-08-588-521-7

Sequence 4, Appli
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Sequence 4555, Ap
Sequence 4296, Ap
Sequence 16, Appl
Sequence 16, Appl
Sequence 3080, Ap
Sequence 53, Appl
Sequence 30, Appl
Sequence 1, Appli
Sequence 907, App
Sequence 37, Appl
Sequence 7, Appli
Sequence 7, Appli
Sequence 7, Appli
Sequence 2813, Ap
Sequence 332, App
Sequence 14, Appli

ALIGNMENTS

RESULT 1

US-09-651-656-4

; Sequence 4, Application US/09651656

; Patent No. 6340566

; GENERAL INFORMATION:

; APPLICANT: MCCUTHEN-MALONEY, SANDRA

; APPLICANT: LAWRENCE LIVERMORE NATIONAL LABORATORY

; TITLE OF INVENTION: DETECTION AND QUANTITATION OF SINGLE NUCLEOTIDE

; TITLE OF INVENTION: POLYMORPHISMS, DNA SEQUENCE VARIATIONS, DNA MUTATIONS,

; TITLE OF INVENTION: DNA DAMAGE AND DNA MISMATCHES

; FILE REFERENCE: IL-10689

; CURRENT APPLICATION NUMBER: US/09/651,656

; CURRENT FILING DATE: 2000-08-29

; PRIOR APPLICATION NUMBER: 60/192,764

; PRIOR FILING DATE: 2000-03-28

; NUMBER OF SEQ ID NOS: 106

; SOFTWARE: Patentin Ver. 2.1

; SEQ ID NO 4

; LENGTH: 2805

; TYPE: DNA

; ORGANISM: Homo sapiens

; US-09-651-656-4

Query Match 13.9%; Score 420.8; DB 4; Length 2805;

Best Local Similarity 51.3%; Pred. No. 6.4e-117;

Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;

Qy 359 ACTGGAGACTGGTAAAGTGGAAACCCAGGAACTTGGAAAGTTTGGAGATATCTGT 418

Db 347 ATTGGTATTGGCATATAAGCTTCTCTGGCATCTCTCAGTTTGAAGACATCTCT 406

Qy 419 TTGCTAATAAGAAATGCAAAATTCCTCCGGTGATGCTGCTTGTGTCCTCAAACTTCGGTC 478

Db 407 TTGTTAACAATGATATGTCAGCTTCCATTTGGTGTGGGTGTTAAATGTCGCGAGTTG 466

Qy 479 AGAATGATGTAAGTTGGCTTAGGCTATCTTATATTAAGAGAGACTCTTGCTTTAA 538

Db 467 ATGCGCCAGACAGAGTTGGAGTTGGGTATGTTCCATACAGAGAGAACTAGGACTGT 526

Qy 539 CAGAAATTCCTAGATGATAGCCACTTCAAAATTTGGAGTCTGCTTTGCTTCTGCTT 598

Db 527 GTGAATTCCTGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 586

Qy 599 GCAGAGATGCTTCTTGTACCCAGCGAGAGCTGGCAATCCAGTGAATACAGGCTTATGTTG 658

Db 587 CAAAGGAATGTTTACCCGGAG---GAGAGACTGCTGGAGACATGGGAAACTGAGAC 643

Qy 659 ATGCAATATCTAGATGCGGCGGTGATGATGATGATGATGATGATGATGATGATGATGAT 718

Db 644 AGATAATTCAGAGAGAGGAGGAAATTCATCATCAGAAAGAAAAAGCTGACTTTTCCCAA 703

QY 719 GAGATTGGTACAGGATCTTGGTAGGCTCGTCAGGGTTCA-----GTAGAAC 766
 Db 704 AAGACATTTATCAGGACCTCAACCGGTGTGTGAAGGCAAAAGGGAGAGCAGATGAATA 763
 QY 767 CTGTTTCAGATTGGTCTCTCGGGTTCGAATGTGCATCAGGCGCTTTGGGGTGCATACCTTT 826
 Db 764 GTGCTGTATTGCCAGAAATGGAGNAATCAGGTTGCAGTTTCATCACTGCTCGCGGTATCA 823
 QY 827 CTTATGACAGAACTACTTGGGATGAGAGCAACTATGGAACTATACAGTCAAAACATACA 886
 Db 824 AGTTTTTGAAGACTCTTATCAGATGATTTCCAACTTTGGACAGTTTGAAGTCACTACTTTTG 883
 QY 887 ACCTCAATAGTTATCATCAGATTAGATTCTGCTGTATGAGAGCACTGAATCTTATGAGA 946
 Db 884 ACTTCAGCCAGTATGAAATGGAATTTGAGAGTTCAGAGAGTTCAGAGCCCTTAACTTTTCAGG 943
 QY 947 GCAATCAGATGCTTAATAAAATTTAGCTTTGTTTGGTCTGATGAATAGAACGTGTACTG 1006
 Db 944 GTTCTGTTGAAGATACCACCTGGCTCTCAGTCTCTGGCTGGCTGCTGAATAAGTGTAAAA 1003
 QY 1007 CTGGAATGGGTAAAGGTTATGACATGTCATGCTGGAAGCAACCTTTACTAGATGAGAAG 1066
 Db 1004 CCCCTCAAGGACAAGACTTTGTTAAACAGTGGATTAAAGCAGCCCTCTCATGGATAAGAA 1063
 QY 1067 AGATTAACTGTAGGCTGGAATTTAGTTCAATCATTCGTGGAGAGTCTGCGCTTCGCCAAG 1126
 Db 1064 GAATAGAGGAGAGTTGAATTTAGTGAAGCTTTTGTAGAGATGCAAAATGAGGCGAGA 1123
 QY 1127 ATTTAGGCGAGCAP---CTGAAAAAATTTTCAGATATTTGAGCGGCTGACACACAACTTTG 1183
 Db 1124 CTTTACAAAGAAATTTACTTCGTGCTGATTTCCAGATCTTAAACCGACTTGCACAAAGTTTC 1183
 QY 1184 AGAGAAAGGCGAGTTTGTAGTGCAGTTGTAAACCTCTATCAGTCAAGTACAGAGTAC 1243
 Db 1184 AAAGACAAGCAGCAACTTTACAGATTTGTACCAGCTCTATCAGGGGTATAAATCAACTAC 1243
 QY 1244 CATATATCAAAAGTGTTTTGAAGCTGATGATGGGCAATTTGCAACACTCATCAGGGAAA 1303
 Db 1244 CTAAATGTTATACAGCTCTGGAAGAAAATGAGGAAACACAGAAATTTATTTGGCAG 1303
 QY 1304 GGTAATTTGATTTCTAGAGAAATGGAGTGTATGATATCACTGAATAAGTTCAATGTC 1363
 Db 1304 TTTTGTGACTCTCTTACTGA-----TCTTCGTCTGACTTCTCAGAGTTTTCAGGAAA 1357
 QY 1364 TTGTGGAACCTTCTGTTGACCTTGAATCACTTGAATGGAATGGAATATCATGATTTCTTG 1423
 Db 1358 TGATAGAAACAACTTTAGATATGGATCAGGTGGGAAACCAATGAATTCCTGTGAAAACTT 1417
 QY 1424 CATATGACCCAAATTTATCTGCTCTGAGGATGAGCAAGACATTTGAGCGCAAAATTC 1483
 Db 1418 CATTTGATCTTAATCTCAGTGAATTAAGAAATTAATGAATGACTTTGGAAAGAGATGC 1477
 QY 1484 ATAAATTTGCAAAACAACTGCCAATGATCTTGATCTTACCTATTGATAAGTCACTTAAAC 1543
 Db 1478 AGTCAACATTAATAAGTGCAGCCAGAGATCTTGGCTTGGACCTTGGCAACAGATTTAAAC 1537
 QY 1544 TAGATAAGAAACAACTTTGGACAGCTTTCAGANTTACCAAGAAAGAGAAACCAAG 1603
 Db 1538 TGGATTCAGTGCACAGTTTGGATATTAATCTTCTGTTAACTGTGAAGGAAAGAAAGTCC 1597
 QY 1604 TCAGGAAGCAGCTAAATCTCACTACATTTGTTCTGAAACAGTAAAGGATGGGTAAAGT 1663
 Db 1598 TTGCTGAA-----CATATAAAACCTTTAGTACTGTAGATATCCAGAGNAATGGTGTAAAT 1651
 QY 1664 TCACCTATACAAACTCAAAACCTAGGATCATGATCTCCAGAGATTTGAGAGAGTACA 1723
 Db 1652 TTACCAACAGCAAAATTTGACTCTTTAAATGAAGATATACCAAAATAAAACAGAAATATG 1711
 QY 1724 AAAGCTGTCAAGAAATTTGAGTCTGTGTAGTTCAACAGCTGCGAGTTTCTCCGAGG 1783
 Db 1712 AAGAGCCCGAGGTGCCATTTGTTAAAGAAATTTGCAATATTTCTTCAGGCTATGTAGAAC 1771

QY 1784 TGTTTGCAGGTATAGCTGGTGTACTTGTCTGAGTTGGATGTTTACTGAGTTTTCGCGATT 1843
 Db 1772 CAATGACAGACACTCAATGATGTTGTAGTCACTGCTAGTGTGTGTGCTGCTCAG 1831
 QY 1844 TGCTGCCAGTTGCCCAACTCCCTCACAAAGACAAATATCAGTCCACAGATACAGAG 1903
 Db 1832 TGTCAAAATGGAGCACCTGTTTCCATATGTACACACAGCCATTTTGGAGAAAGCAAGAA 1891
 QY 1904 ATATTATCTTGAAGGGTGTAGCATCTTGTGTGAGAGCTCAAGATTGGGTTAACTCCA 1963
 Db 1892 GAATTTATTTAAAGCATCCAGGCTGCTTGTGTGAAGTTCAGATGAATTCATTTA 1951
 QY 1964 TTCTTAATGACTCTAGACTAGTTAGGGGAGAGAGTTGGTTTCAGATTATCACAGGCCCTA 2023
 Db 1952 TTCTTAATGACTATATCTTTGAAAGATPAAACAGATGTTCCACATCATTTACTTGGCCCCA 2011
 QY 2024 ACATGGGTGAAAAGTGCACCTACATTCGCGCAGTGTGGTGTGAATGCTCTGATGCCCAAG 2083
 Db 2012 ATATGGAGGTAATCAACATATATTCGACAAACTGGGGTGTAGTACTCATGSCCCAAA 2071
 QY 2084 TTGGCTGTTTGTTCATGTGCAATGCTACCATTTCTATTCTGATGTTTATTTTGTCTC 2143
 Db 2072 TTGGGTGTTTGTGCCATGTGATGACAGAGTGTCCATTTGGACTGCTATCTTAGCCCC 2131
 QY 2144 GTGTGGCGCTGGAGATTGGCAGCTGAGAGAGTTCCTACTTTTATGCAAGAGATGCTTG 2203
 Db 2132 GAGTAGGGCTGTGTGACAGTCAATTTGAAGAGTCTCCAGTTTCATGCTGGAATGTGG 2191
 QY 2204 AGACTGCATCGATCTTGAAGAGGAGTACTGATAGATCAATTTGATTAATTAATGATGAGTTGG 2263
 Db 2192 AAACCTGCTTCTATCTCAGTCTGCAACCAAGATTCATTTAATCATAGATGAATGG 2251
 QY 2264 GCGTGGGACATCACTCAGTGGCTTGTGTGTAGTGGCTTATTTGTGAGCACATTG 2323
 Db 2252 GAAGAGAACTTCTTACCTCAGTGGATTTGGTTAGCAGGGCTATATCAGATACATTG 2311
 QY 2324 TTGAAGAAATTTAAAGCACCAACATTTGTTGCCACTCACCTTCATGAGCTGACTGCAATTG 2383
 Db 2312 CAACAAGATTGGTGTCTTTTGTGATGTTTGCACCCATTTTCATGAACTTACTGSCCTGG 2371
 QY 2384 CCACAAAGAAATGGAGACAATGGGACATAAGAAAATGCTGGGATAGCAAAATTTTCATGTTT 2443
 Db 2372 CCAATCAG-----ATACCAACTGTTTAATAATATCATGTCA 2407
 QY 2444 TTGCACACATTTGCCCTTCTAATGCGCAAGCTTAACATGCTTTTACAAGTTTCAACCCAGT 2503
 Db 2408 CAGCACTCA-----CACTGGAAGAGACCTTAACATGCTTTTATCAGGTGAAGAAAGTG 2461
 QY 2504 CTTGTGATCAGAGTTTGGTATTTCATGTTGCTGAAATTTGCAAAATTTTCCACCGAGTGTG 2563
 Db 2462 TCTGTGATCAAGTTTGGGATTCATGTTTCAGAGCTTGTCTAATTTCCCTTAAGCATGTAA 2521
 QY 2564 TGCTCTGGCTAGAGAAAGGCTCTGAGTTGAGGATTTCTCTCCTATTGCCCATAATTC 2623
 Db 2522 TAGAGTGTCTTAACAGAAAGCCCTGGAACTTGAAGGAGTTTCAAGTATATTGGAGATCGC 2581
 QY 2624 CAAATGACATTTAAAGAGGAGCTTTCAAAACCGAAGAGAGAAATTTGA 2669
 Db 2582 AAGGATGATATCATGGAACACAGCAGCAAGAAAGTGTCTATCTGGA 2627

RESULT 2
 US-09-650-855-4
 ; Sequence 4, Application US/09650855
 ; Patent No. 6365355
 ; GENERAL INFORMATION:
 ; APPLICANT: MCUTHERN-MALONEY, SANDRA
 ; APPLICANT: LAWRENCE LIVERMORE NATIONAL LABORATORY
 ; TITLE OF INVENTION: CHIMERIC PROTEINS FOR DETECTION AND QUANTITATION OF DNA
 ; TITLE OF INVENTION: MUTATIONS DNA SEQUENCE VARIATIONS, DNA DAMAGE AND DNA
 ; TITLE OF INVENTION: MISMATCHES
 ; FILE REFERENCE: IL-10284
 ; CURRENT APPLICATION NUMBER: US/09/650,855

; CURRENT FILING DATE: 2000-08-29
 ; PRIOR APPLICATION NUMBER: 60/192,764
 ; PRIOR FILING DATE: 2000-03-28
 ; NUMBER OF SEQ ID NOS: 106
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 4
 ; LENGTH: 2805
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 ; US-09-650-855-4

Query Match 13.9%; Score 420.8; DB 4; Length 2805;
 Best Local Similarity 51.3%; Pred. No. 6.4e-117;
 Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;
 359 ACTGGAGACCTGTTAAAGTGGAAACCCAGGGAATCTTGGAAAGTTTGGAGGATTTCTGT 418
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 347 ATTGGTATTTGGCATATAAGGCTTCTCTGGCAATCTCTCAGTTTGAAGACATTTCTCT 406
 Qy |||||
 419 TTGCTAATATGAATGCAAAATTTCCGGTGATTTGCTCTTGTCTCCAAATCTCGGTC 478
 Db |||||
 407 TTGGTAAATGATATGCTAGCTTCATTTGGTGTGGGTGTTAAATGTCGCGAGTTG 466
 Qy |||||
 479 AGAATGGATGTGAAGTTGGCTTAGGCTATCTTGATATTAAGAGAGTCTCTTGGTTAA 538
 Db |||||
 467 ATGGCCAGACAGAGTGGAGTTGGGTATCTGGATTCATACAGAGGAAACTAGGACTGT 526
 Qy |||||
 539 CAGAAATTTAGATGATAGCCATTTCAAAATTTGGAGTCTGCTTTGGTCTTCTGGTT 598
 Db |||||
 527 GTGAATTTCCCTGATATGATGATCTTCAATCTTGAGGCTCTCCTCATCCAGATTGGAC 586
 Qy |||||
 599 GCAGAGATCTCTGTACACAGCGAGACTCGCAATCCAGTGAATACAGGCTTATGTTG 658
 Db |||||
 587 CAAGGATGTGTTTACCGGAG---GAGAGCTGCTGGAGCATCGGGAATCTGAGAC 643
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 659 ATGCAATATCTAGATCGGGTGTATGATGATCTGAAAGAAAGAAACTGAAATTTAAAGGGA 718
 Db |||||
 644 AGATAATTTCAAGAGGAGGAATTTCTGATACAGAGAAAGAAAGCTGATTTTCCACAA 703
 Qy |||||
 719 GAGATTGGTACAGATCTTGGTAGGCTCTCAAGGTTCA-----GTGAAAC 766
 Db |||||
 704 AAGACATTTATCAGGACCTCAACCGGTGTTGAAAGGCAAAAGGAGGAGCAGATGAATA 763
 Qy |||||
 767 CTGTTCCAGATTTGGTCTCTGGGTTCGAATGTGATCAGCGCTTTGGGGTGCATCTTT 826
 Db |||||
 764 GTGCTGATTTGCCAGAAATCGAATCAGGTTGCGAGTTTCATCTGCTGCGGTATCA 823
 Qy |||||
 827 CTTATGCAAGAACTACTTGGCGATGAGAGCAACTATGAAACTATACAGTCAAAACAATACA 886
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 824 AGTTTATAGAACTCTTATCAGATGATTCCAACTTTGGACAGTTTGAATCTGACTACTTTG 883
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 887 ACCTCAATAGTTACATGAGATTTAGATCTCTGCTATGAGAGCACTGAATGTTATGGAGA 946
 Db |||||
 884 ACTTCAGCCAGTATATGAATGGATTTGAGAGGCTTCAAGGCTTAACTTTTTCAGG 943
 Qy |||||
 947 GCAATCAGATGCTATATAAAATTTTAGCTTGTTCGCTCTGATGAATAGAACTGTACTG 1006
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 944 GTTCTGTGAGATACCACTGGCTCTCAGTCTCTGGCTGCTTCTGTAATAGTTTAAAA 1003
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 1007 CTGGAATGGGTAAAGGTTATTTGCAATGTGGCTGAGCAACCTTTTACTAGATGTAGAAG 1066
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 1004 CCCCTCAAGCAAAAGACTTTGTTAAACCAAGTGGATTAAGCAGCCTCTCATGGATAAGAA 1063
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 1067 AGATTAACTAGCTGGATTTAGTTCAATCATTTGAGGAGTGTGCGCTTCGCGCAAG 1126
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 1064 GAATAGAGGAGATTTGAATTTTAGTGAAGCTTTTGTAGAAGATTCAGAAATTGAGGCAGA 1123
 Qy |||||
 1127 ATTTGAGGAGACT---CTGAAAGAAATTTAGATTTGAGCGCTGACACACAATCTTG 1183
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 1124 CTTTACAGAAATTTACTTCTGCTGATTTCCAGATCTTAACCGACTTGCACAGAGTTTC 1183
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 1184 AGAGGAAAGAGCCAGTTTATGTCAGCTTTGTAATCTTATCAGTCAAGTACCAGAGTAC 1243
 Db |||||

1184 AAAGACAAGCAGCAAACTTTACAGATTGTTTACCAGCTCTATCAGGGTATTAATCAACTAC 1243
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 Qy |||||
 1424 CATATGACCAAAATTTATCTGCTCTGAAGATGAGCAAGAGACATTTGGAGCGCAAAATTC 1483
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 1418 CATTTGATCCTAATCTCAGTGAATTAAGAGAAATAATGAATGACTTTGGAAAAAGAGATGC 1477
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 1484 ATAATTTGCACAAACAACTGCGCAATGATCTCTGATCTACCTATTGATAAGTCACTTAAAC 1543
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 1478 AGTCAACATTAATAGTGTGAGCCAGAGATCTTGGCTTGGACCTTGGCAACAGATTAAC 1537
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 Qy |||||
 1604 TCAGGAGCAGCTAATTTCTACTCACTTCTTCTGAAACACAGTAAGGATGGGTTAAAGT 1663
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 1598 TTGCTAA-----CAATAAAACCTTTAGTACTGTAGATATCCAGAAAGATGGTGTAAAT 1651
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 1652 TTACCAACAGCAATTTGACTCTTTAAATGAAGATATACCAAAATAAACAAGATATG 1711
 Qy |||||
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 Qy |||||
 1784 TGTTCAGGATATAGCTGGTGTACTTGTGATGATGATGATGATGATGATGATGATGATGATG 1843
 Db |||||
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 Qy |||||
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 1832 TGTCAATGAGCAGCACTGTTTCCATATGTACACACCCATTTTGGAGAAAGCAAGGAA 1891
 Qy |||||
 1904 ATATTAATCTTGAAGGCTGTAGCACTCTGTGTGTGAAAGCTCAAGATTTGGGTTAACTCCA 1963
 Db |||||
 1892 GAATTAATTTAAAGCATCCAGGATGCTGTGTGAAAGTTCAAGATGAAATTTGCATTTA 1951
 Qy |||||
 1964 TTCCCTAATCAGCTAGACTAGTTAGGGGAGAGATTTGGTTTTCAGATTTATCAGAGGCCCTA 2023
 Db |||||
 1952 TTCCCTAATGACGTATATCTTTGAAAAAGATTAACAGATGTTTCCACATTTACTTGGCCCCA 2011
 Qy |||||
 2024 ACATGGGTGAAAGTCCAGCTCATTTCCGCGAGGTTGGTGTGATGTTCTGATGCCCAAG 2083
 Db |||||
 2012 ATATGGGAGGTAAATCAATATTTTCGACAACTGGGGGTAGTACTCATGCCCCAA 2071
 Qy |||||
 2084 TTGGCTGCTGTTTGTTCATGTGCAATGTCTCAATTTCTATTCGTGATTTGATTTTGTCTC 2143
 Db |||||
 2072 TTGGGTGTTTGTGCCATGTGAGTCAGCAAGAGTGTCCATTTGGGACTGCAATCTTAGGCC 2131
 Qy |||||
 2144 GTGTTGGCTCGGAGATTCGCCAGCTCAGAGAGTGTCTACTTTTATGCAAGAGATCTTGG 2203
 Db |||||
 2132 GAGTAGGGCTGTGTGACAGTCAATTTGAAAGGAGTCTCCAGTTTCATGGCTGAAATGTTGG 2191
 Qy |||||
 2204 AGACTTCATCTGATCTTTGAAAGGAGCTTACTGTATGATCATTTGATTAATTTGATGTTGG 2263
 Db |||||
 2192 AAATGCTTCTATCTCAGCTCTGCAACCAAGATTCATTAATATCATAGATGATTTGG 2251
 Qy |||||
 2264 GCGGTGGGACATCAACCTACAGATGGCTTTGGTTTGTAGCTTTGGGCTATTTGTGAGCACTTG 2323
 Db |||||
 2252 GAAGAGAACTTCTACCTACGATGGATTTGGGTTAGCATGGGCTATATCAGAAATACATTTG 2311

QY 2324 TTGAAGAAATTAAGCACCACCAATTGTTTCCCACTCACTTTCATGAGCTGACTGCATTAG 2383
 Db 2312 CAACAAGATTGTGCTTTTTCATGTTTTCACCCCACTTTCATGAACTTACTGCTTGG 2371
 QY 2384 CCAACAAGATGAGACCAATGAGACATAAGAAAAATGCTGGATAGCAAAATTTTCATGTTT 2443
 Db 2372 CCAATCAG-----ATACCAACTGTTAATAATCTACATGCA 2407
 QY 2444 TTGCACATGACCCCTTCTAATGCGAAGCTAATGCTTTTCAAGGTTTCAACCGAGTG 2503
 Db 2408 CAGCACTCA-----CCACTGAAGAGACCTTAACTATGCTTTTATCAGGTGAAGAAAGTG 2461
 QY 2504 CTGTGATCAGAGCTTTTGGTATTCATGCTGCTGAAATTTGCAAAATTTCCACCAGAGTTG 2563
 Db 2462 TCTGTATCAAAATTTTGGATTCATGTTGAGAGCTTGTCTAATTTCCCTTAACATGTAA 2521
 QY 2564 TGCTCTGGCTAGAGAAAAGGCACTGAGTTGGAGGATTTCTCTCCTATTGCCAATTC 2623
 Db 2522 TAGAGTGTCTAAACAGAAAGCCCTGGAACCTTGAGGAGTTTTCAGTATATTGGAGAAATCGC 2581
 QY 2624 CAATGACATTAAGAGGAGCTTCAAAACGGAGAGAGAAATTGA 2669
 Db 2582 AAGGATATGATATCATGGAACCGAGCAGCAAAAGAGTGCTATCTGGA 2627

RESULT 3
 US-08-457-176-1
 ; Sequence 1, Application US/08457176
 ; Patent No. 5591826
 ; GENERAL INFORMATION:
 ; APPLICANT: Vogelstein, Bert
 ; APPLICANT: Kinzler, Kenneth W.
 ; APPLICANT: de la Chapelle, Albert
 ; TITLE OF INVENTION: Mutator Gene and Hereditary
 ; TITLE OF INVENTION: No. 5591826-Polyposis Colorectal Cancer
 ; NUMBER OF SEQUENCES: 16
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Banner, Birch, McKie, and Beckett
 ; STREET: 1001 G Street, N.W.
 ; CITY: Washington
 ; STATE: D.C.
 ; COUNTRY: USA
 ; ZIP: 20001
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/457,176
 ; FILING DATE: 01-JUN-1995
 ; CLASSIFICATION: 530
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/160295
 ; FILING DATE: 02-DEC-1993
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Kagan, Sarah A.
 ; REGISTRATION NUMBER: 32,141
 ; REFERENCE/DOCKET NUMBER: 01107.44900
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 202.508.9100
 ; TELEFAX: 202.508.9299
 ; TELEX: 197430 BEMB UT
 ; INFORMATION FOR SEQ ID NO: 1:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 2947 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: double
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: cDNA
 ; HYPOTHETICAL: NO
 ; ANTI-SENSE: NO

; ORIGINAL SOURCE:
 ; ORGANISM: Homo sapiens
 ; US-08-457-176-1
 Query Match 13.9%; Score 420.8; DB 1; Length 2947;
 Best Local Similarity 51.3%; Pred. No. 6.6e-117;
 Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;
 QY 359 ACTGGAGACTGTGTAAGTGGAAACCCAGGAGAACTCTTGGAGTTTGTGAGGATATCTGT 418
 Db 415 ATTGGTATTGGCATATAAGGCTTCTCTGGCAATCTCTCTCAGTTTGAAGACATTTCT 474
 QY 419 TTGCTAATAATGAAATGCAAAATTTCTCCGGTGTATGCTCTCTTCTCAAAATCTCGGTC 478
 Db 475 TTGGTAACATGATATGTCAGCTTCCATTTGGTGTCTTAAATCTCCGAGTTG 534
 QY 479 AGAATGGATGTGAAGTTGGCTTAGGCTATGTGATATTAATAAGAGAGTCTTGGTTTAA 538
 Db 535 ATGGCCAGAGACAGGTTGGATTTGGGTATGTGGATTTCCATACAGAGGAACTAGGACTGT 594
 QY 539 CAGAAATTTCTAGATGATAGCCACTTCCAAATTTGGAGTCTGCTTTGGTGTCTTTGGTT 598
 Db 595 GTGAATTTCCCTGATATGATCAGTTCTCCAATCTTGAGGCTCTCTCATCCAGATTGGAC 654
 QY 599 GCAGAGATGCTCTTGTACCCAGGAGACTGGCAAAATCCAGTGAATACAGGCTTATGTTG 658
 Db 655 CAAGGAATGTGTTTACCCGGAG---GAGAGACTGCTGGAGACATGGGAACTGAGAC 711
 QY 659 ATGCAATATCTAGATCGGCGTGTATGTAACGTGAAGAAAGAAACTGAATTTTAAAGGGA 718
 Db 712 AGATAATTTCAAAGAGAGGAGAAATTTCTGATCACAGAAAGAAAGTGAATTTTCCACAA 771
 QY 719 GAGATTTGGTACAGGATCTTGGTAGGCTCTCAAGGTTCA-----GTAGMAC 766
 Db 772 AAGACATTTATCAGGACCTCAACCGGTTGTTGAAGGCAAAAGGAGAGAGCAGATGAATA 831
 QY 767 CTGTTCCAGATTTGCTCTCTGGGTTGCAATGTGCATCAGCGCTTTGGGGTGCATACTTT 826
 Db 832 GTGCTGTTGCCAGAAATGGAGAAATCAGTTGACGTTTTCATCACTGCTGCGGTAATCA 891
 QY 827 CTTATGCAAGACTACTTGGCGATGAGAGCAACTATGGAACCTATACAGTCAAAACATACA 886
 Db 892 AGTTTTTAGAATCTCTTATCAGATGATTTCCAACTTTGACAGAGTTTGAACACTGACTTTG 951
 QY 887 ACCTCAATAGTTACATGAGATGATTTCTGCTGCTATGAGGACACTGAATGTTATGAGA 946
 Db 952 ACTTCAGCCAGTATATGAAATTTGGAATTTGACAGAGTTCAGAGCCCTTAACCTTTTCAG 1011
 QY 947 GCAAAATCAGATGCTAATAAAAAATTTTAGTCTTCTGCTCTGATGAATAGAACGTGACTG 1006
 Db 1012 GTTCTGTTGAGATACCACTGGGCTCTCAGTCTCTGGCTGCTTGTGAATAAGTTAAAA 1071
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 QY 1067 AGATTAACTGTAGCTGGATTAGTTCAATCATTCGTGGAGGATGCTGGCTTCGCCAAG 1126
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 Db 1312 CTAATGTTATACAGGCTCTGGAAAAACATGAAGAAAAACACAGAAATTTATTGTTGGCAG 1371
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Db 1372 TTTTGTGACTCTCTTACTGA-----TCTTCTGTTCTGACTTCTCCAGTTTCAGGAAA 1425
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 Db 1960 GAATATATTAAAGCATCCAGGATGCTGTGTGTAAGTTCAAGATGAATTCATTTA 2019
 QY 1964 TTCCTAATGACTGTAGACTAGTTAGGAGAGAGTGTGTTTTCAGATATACAGCCCTTA 2023
 Db 2020 TTCTATATGAGTATCTTTGAAAAGATAACAGATGTTCCACATCATTTACTGCCCCA 2079
 QY 2024 ACATGGGTGGAAGTCCGACTACATTCGGCAGGTGTGTGTAATGTCTGTATGCCCCAAG 2083
 Db 2080 ATATGGGAGGTAAATCAACATATATTCGACAACTGGGGTGATAGTACTCATGGCCCCA 2139
 QY 2084 TTGGCTGTTTGTTCATGTGACATGCTACCATTTCTATTCTGATGTATTTTGTCTC 2143
 Db 2140 TTGGGTGTTTGTGCCATGTGAGTCAGAGTCAATTTGAAGAGTCTCCAGTTTATGGCTTAGCCCC 2199
 QY 2144 GTGTGGCGTGGAGATGCCAGCTGAGAGAGTTTCTACTTTTATGCAAGAGATGCTTG 2203
 Db 2200 GAGTAGGGCTGGTGACAGTCAATTTGAAGAGTCTCCAGTTTATGGCTGAATGTTGG 2259
 QY 2204 AGATCGATCATCTTGAAGAGGCTACTGTATGATCATTTGATTAATTAATGATGAGTTGG 2263
 Db 2260 AAATCTGTTCTATCTCTCAGGTCTGCAACCAAGATTCATTAATAATCATAGATGAATTGG 2319
 QY 2264 GCGGTGGGACATCACTTACCATGCTTTGTGTAGCTTGGCTATTGTGAGCACATTG 2323
 Db 2320 GAAGAGGAATCTTACCTTACCATGATTTGGTTAGCATGGGCTATATCAGAAATACATTG 2379
 QY 2324 TTGAAGAAATTAAGCACCACATTTGTTGCCATCTCACTTTTCATGAGTCACTTAG 2383
 Db 2380 CAACAAGATTTGGTGTCTTTTTCATGTTTGAAGTTTGAACCAATTTTCATGAACTTACTGCTTGG 2439
 QY 2384 CCAACAGATGGAGACAATGGACATAAGAAAATGCTGGGATAGCAAAATTTTCATGTTT 2443

Db 2440 CCATCAG-----ATACCACTGTTAATAATCTCATGTCA 2475
 QY 2444 TTGCACATGTGACCCCTTCTAATGCGAAGTAACTATGCTTTTACAGGTTTACCCAGGTG 2503
 Db 2476 CAGCACTCA-----CCACTGAAGAGACCTTAACTATGCTTTTATCAGGTGAAGAAAGTG 2529
 QY 2504 CTTGTGATCAGATTTGTTGTTATTCATGCTGCTGAATTTGCAAAATTTTCCACCGAGTTG 2563
 Db 2530 TCTGTGATCAAAAGTTTGGGATTCATGTTGAGAGCTTGTCTAATTTCCCTAAGCATGTAA 2589
 QY 2564 TGGCTCTGGCTAGAGAAAAGGCATCTCAGTTGGAGGATTTCTCTCTTATTTGCCATAATTC 2623
 Db 2590 TAGAGTGTGCTAAACAGAAAGCCCTGGAACCTTGAGGAGTTTCAGTATATTGGAGATCGC 2649
 QY 2624 CAATGACATTAAGAGGCGAGCTTCAAAAACGGAAGAGAGAAATTTGA 2669
 Db 2650 AAGGATATGATATCATGTGAACACAGCAGCAAAAGAGTGTCTATCTGGA 2695

RESULT 4

US-08-457-175-1
 ; Sequence 1, Application US/08457175
 ; Patent No. 5693470
 ; GENERAL INFORMATION:
 ; APPLICANT: Vogelstein, Bert
 ; APPLICANT: Kinzler, Kenneth W.
 ; APPLICANT: de la Chappelle, Albert
 ; TITLE OF INVENTION: Mutator Gene and Hereditary
 ; NUMBER OF INVENTIONS: No. 5693470-Polypsis Colorectal Cancer
 ; NUMBER OF SEQUENCES: 16
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Banner, Birch, McKie, and Beckett
 ; STREET: 1001 G Street, N.W.
 ; CITY: Washington
 ; STATE: D.C.
 ; COUNTRY: USA
 ; ZIP: 20001
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent In Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/457,175
 ; FILING DATE: 01-JUN-1995
 ; CLASSIFICATION: 435
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/160295
 ; FILING DATE: 02-DEC-1993
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Kagan, Sarah A.
 ; REGISTRATION NUMBER: 32,141
 ; REFERENCE/DOCKET NUMBER: 01107.44900
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 202.508.9100
 ; TELEFAX: 202.508.9299
 ; TELEX: 197430 BMB UT
 ; INFORMATION FOR SEQ ID NO: 1:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 2947 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: double
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: cdna
 ; HYPOTHETICAL: NO
 ; ANTI-SENSE: NO
 ; ORIGINAL SOURCE:
 ; ORGANISM: Homo sapiens
 ; US-08-457-175-1

Query Match 13.9%; Score 420.8; DB 1; Length 2947;
 Best Local Similarity 51.3%; Pred. No. 6.6e-117;
 Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;

QY 359 ACTGGAGCTGGTAAAGTGAACCCAGGAACTCTGGAGTCTTTGAGGATATCTGT 418
 Db 415 ATTGGTATTTGGCATAAAGCTTCTCTGGCAATCTCTCTCAGTTTGAAGACATCTCT 474
 QY 419 TTGCTAATAATGAATGCAAAATTTCCGGGTGATGCTGCTCTTGGCTCCAACTTCGGTC 478
 Db 475 TTGCTAACAATGATATGTCAGCTTCCATTTGGTGTGGGTGTTAAAAATGTCGCCAGTTG 534
 QY 479 AGAATGATGTAAGTTGGCTTAGCTATGTTGATATTAATAAGAGAGTCTTGTTGTTAA 538
 Db 535 ATGCCAGAGACAGGTTGGAGTTGGGTATGTTGGATCCATACAGAGGAAACTAGGACTGT 594
 QY 539 CAGAAATTTCTAGATGATGACCACTTCAAAATTTGGAGTCTGCTTGGTCTCTTGGTT 598
 Db 595 GTGAAATTTCCCTGATAATGATCAGTTCTTCCATCTTGGGCTCTCTCATCCAGATTTGAC 654
 QY 599 GCAGAGAAATGCTTTGTACCGAGGAGACTGCCAAATCCAGTGAATACAGGCTATGTTTG 658
 Db 655 CAAAGGAATGTTTTACCCGGAG--GAGAGACTGCTGGAGACATGGGGAACCTGAGAC 711
 QY 659 ATGCAATATCTAGATGGCGGTGATGTTGTAATCTGAAGAAAGAAACTGAATTTAAAGGGA 718
 Db 712 AGATAATTTCAAGAGGAGGAATCTGATCAGAAAGAAAGAAAGAGCTGACTTTTCCCAA 771
 QY 719 GAGATTTGGTACAGGATCTTGGTAGGCTCGTCAAGGGTTCA-----GTAGAAC 766
 Db 772 AAGACATTTATCAGGACTCAACCGTTGTTGAAGGCAAAAGGAGAGACAGATGAATA 831
 QY 767 CTGTTTCAGATTTGGTCTCTGGTTCGAAATGTGCATCAGGCGCTTTGGGGTGCATCTTT 826
 Db 832 GTGCTGTTATGCCAGAAATGAGAAATCAGGTGTCAGTTTCATCTGCTCGCGTAAATCA 891
 QY 827 CTTATGACAGACTTACTTGGCGATGAGGACACTATGAAACTATACAGTCAAAACAATACA 886
 Db 892 AGTTTTTAGAACTCTTATCAGATGATTTCCAACTTTGGACAGTTTGAACGTACTACTTTTG 951
 QY 887 ACCTCAATAGTTATCAGATTTAGATTTCTGCTGTATGAGAGCACTGAATGTTATGAGA 946
 Db 952 ACTTCAGCCAGTATATGAAATTTGATATTCAGCAGTCAAGAGCCCTTAACTTTTTCAGG 1011
 QY 947 GCAAAATCAGATGCTPAATAAAATTTTACGTTGTTTGGTCTGATGAATAGAACGTTACTG 1006
 Db 1012 GTTCTGTTGAAGATACACTGGCTCTCAGTCTCTGGTCTGCTGCTGCTGAATAAGTTGTA 1071
 QY 1007 CTGGAATGGGTAAAGGTTATTTGACATGTTGGCTGAGACCACTTTACTAGATCTAGAG 1066
 Db 1072 CCCCTCAAGGACAAAGACTTTGTTAACCAAGTGGATTAAGCAGCCCTCTCATGGATAAGAAC 1131
 QY 1067 AGATTAACTGTAGGCTGGATTTAGTTCAATCATTCGTGGAGGATGCTGCGCTTCGCCAAG 1126
 Db 1132 GAATAGAGGAGAGATTGAATTTAGTGGAGCTTTTGTAGAAGATGCAAGATTGAGGCAGA 1191
 QY 1127 ATTTGAGCGACAT---CTGAAAAGATTTGAGATTTGAGCGGCTGACACACAATCTTG 1183
 Db 1192 CTTTACAGAAGATTTACTTGGTCCGATTTCCAGATCTTAAACCGACTTCCCAAGAGTTTC 1251
 QY 1184 AGAGGAAAGAGCAGTTTACTGACGCTTTGAAACTCTATCAGTCAAGTACCAGAGTAC 1243
 Db 1252 AAGACAGCAGCAACTTACAAGATTGTTACCGACTCTATCAGGGTATATAATCAACTAC 1311
 QY 1244 CATATATCAAAAGTGTGTTGGAAGCTCATGATGGCAATTTTGCACACTCATCAGGGAAA 1303
 Db 1312 CTAATGTTTATACAGCTCTCGGAAAACATGAAGGAAACACACAGAAATTTATTTGGCAG 1371
 QY 1304 GGTATATGATTTCTAGAGAAATGGAGTATGATATATCACTGAATGAATTCATAGTTC 1363
 Db 1372 TTTTGTGACTCTCTTACTGA-----TCTTCTGTTCTGACTTCTCCAAAGTTTTCAGGAAA 1425
 QY 1364 TTGTGGAACTTCTGTTGACCTTGTATCACTTGTGAAATGGGAAATACATGATTTCTTCTG 1423
 Db 1426 TGATAGAAACCACTTTAGATATGATCAGGTGGGAAACCACTGAATTCCTTGTAAACCTT 1485

QY 1424 CATATGATCCCAATTTATCTGCTCTGAAGGATGAGCAAGAGACATTTGAGCGCAAAATTC 1483
 Db 1486 CATTTGATCTTAATCTCAGTGAATTTAGAGAAATATGAATGACTTTGGAAAAGAGATGC 1545
 QY 1484 ATAATTTGCACAAAACAACTGCCAATGATCTTGTATCTACCTATTTGATAAGTCACTTAAAC 1543
 Db 1546 AGTCAACATTTAATAAGTGCAGCCAGAGATCTTGGCTGGACCCTGGCAACACAGATTAAAC 1605
 QY 1544 TAGATAAGAAAACACAAATTTGGGACAGCTCTTCAAGATTACCAAGAAAGAGAACCAAAAG 1603
 Db 1606 TGAATTTCCAGTGCACAGTTTGGGATATTTACTTTCGTGTAACCTGTAAAGGAAAGAAAAGTCC 1665
 QY 1604 TCAGGAAGCAGCTAAATTTCTCACTCAATCTTCTCGAAAACACGTAAAGGATGGGATAAGT 1663
 Db 1666 TTGTTAA-----CAATAAAAACCTTTAGTACTGTAGATATCCAGAGAAATGGTTPAAT 1719
 QY 1664 TCACCTATACAAAACCTCAAAAACCTAGGAGATCAGTTTCCAGAGATTTGTAGAGAGTACA 1723
 Db 1720 TTACCAACAGCAAAATGACTTCTTTAAATCAGAGATATACAAAAATAAAACAGAAATATG 1779
 QY 1724 AAGCTCTGCAGAAAGAAATTTGGTAGCTCGTGTAGTCTCAACAGCTGCGAGTTTCTCCGAGG 1783
 Db 1780 AAGAAGCCCGAGGATGCCATTTGTTAAAGAAATTTGCAATATTTCTTACGGCTATGTAGAAC 1839
 QY 1784 TGTTCGAGGTATAGCTGGTGTACTTGTCTGAGTTGGATGTTTACTCAGTTTTCGCGAAT 1843
 Db 1840 CAATGCAGACACTCAATGATGTTGTAGTCTAGCTAGATGCTGTTGTCTGCTCAGC 1899
 QY 1844 TGGTGCAGTTGCCAACCTCCCTCACAAAGACCAAAATATCATGTCACCCAGATACAGGAG 1903
 Db 1900 TGTCAAAATGAGCAGCCCTGTTCCATATGTACAGCAGCCATTTTGGAGAAAGGACAAGGAA 1959
 QY 1904 ATATTATACTTTGAAGGTTGAGGCTGAGGATCTTGTGTGGAAGCTCAAGATTTGGTGAATCC 1963
 Db 1960 GAATTTATTTAAAGCAATCCAGGATGCTGTTGTGAAGTTCAAGATGAATTCATTTA 2019
 QY 1964 TTCTTAATGACTGTAGACTAGTTAGGGGAGAGAGTTGGTTTTCAGATTTATCACAGGCCCTA 2023
 Db 2020 TTCTTAATGACGTATATCTTTGAAAAGATATAACAGATGTTCCACATCATTTACTGGCCCCA 2079
 QY 2024 ACATGGGTGAAAAGTGCACCTCATTTGCGCAGGTTGGTGTGAATGTCCTGATGSCCAG 2083
 Db 2080 ATATGGGAGGTAAATCAACATATATTCGACAAATCTGGGGTGTAGTACTCATGSCCAGAA 2139
 QY 2084 TTGCTGCTTTTGTTCATGTGCAATGCTACCTATTTCTATTCGTGATGTTGATTTTCTC 2143
 Db 2140 TTGGGTGTTTTGTGCCATGTGAGTCAGCAGAGTGTCCATTTGGAGTGTGATCTTAGCCCC 2199
 QY 2144 GTGTTGGCGCTGGAGATTCAGCTGAGAGAGTTTCTACTTTTATGCAAGAGATGCTTG 2203
 Db 2200 GAGTAGGGGCTGGTGAACAGTCAATTTGAAGGAGTCTCCACGTTTCATGGCTGAAATGTTGG 2259
 QY 2204 AGACTGCATCGATCTTGAAGGAGTACTGTATAGATCATTTGATTAATTTGATGAGTTGG 2263
 Db 2260 AAATCTGCTTATCTCTCAGGTCTGCAACCAAGATTCATTAATAATCATAGATGAATTTGG 2319
 QY 2264 GCGTGTGGACATCAACCTACAGTGGCTTTGTTTGTAGCTTGGGCTATTTTGTGAGCACATTG 2323
 Db 2320 GAAGAGGAATTTCTACCTACATGGATTTGGTTAGCATGGGCTATATCAGATATCATTTG 2379
 QY 2324 TTGAAGAAATTAAGACCAACCAATTTTGGCCACTCATCTTTCATGAGCTGACTGCAATTAG 2383
 Db 2380 CAACAAGATTTGGTCTTTTTCATGTTTTCGCAACCCCATTTTTCATGAACCTTACTGCTTGG 2439
 QY 2384 CCAACAGAAATGAGACAAATGGAACATAAGAAAATGCTGGGATAGCAAAATTTTCATGTTT 2443
 Db 2440 CCAATCAG-----ATACCAACTGTTAATAATCTACATGTCA 2475
 QY 2444 TTGCACACATTTGACCTTCTAATTCGCAAGCTTAATACTGTTTCAAGGTTTCAACCCAGGTG 2503
 Db 2476 CAGACTCA-----CCACTGAAAGACACTTAACTACTGCTTTTATCAGGTGAAAGAGGTG 2529
 QY 2504 CTTGTGATCAGAGTTTGGTGTATTCATGTTGCTGAAATTTTGCAAAATTTTCCACCGAGTGTG 2563

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Db 2530 TCCTGATCAAGATTGTTGGGATTCATCTTCAGAGCTTGCTAATTCCTCAAGCATGTA 2589
QY 2564 TGGCTCTGGCTAGAGAAAGCATCTGAGTTGGAGGATTTCTCTCTATTTGCCAATAATTC 2623
Db 2590 TAGAGTGTGCTAAACAGAAAGCCCTGGAACTTTGAGGAGTTTCAGTATATTGGGAATCGC 2649
QY 2624 CAAATGACATTAAGAGCGAGCTTCAAAACGGAGAGAGATTTGA 2669
Db 2650 AAGGATGATATCATGAAACCGAGCAGCAAGAGTGTCTATCTGGA 2695

RESULT 5
US-09-220-132-8
; Sequence 8, Application US/09220132
; Patent No. 650607
; GENERAL INFORMATION:
; APPLICANT: Shyjan, Andrew W.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR THE IDENTIFICATION AND ASSESSMENT
; OF PROSTATE CANCER THERAPIES AND THE DIAGNOSIS OF PROSTATE CANCER
; FILE REFERENCE: 07334-074001
; CURRENT APPLICATION NUMBER: US/09/220,132
; CURRENT FILING DATE: 1998-12-23
; PRIOR APPLICATION NUMBER: US 60/079,303
; PRIOR FILING DATE: 1998-03-25
; PRIOR APPLICATION NUMBER: US 60/068,821
; PRIOR FILING DATE: 1997-12-24
; NUMBER OF SEQ ID NOS: 191
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 2947
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-220-132-8

Query Match 13.9%; Score 420.8; DB 4; Length 2947;
Best Local Similarity 51.3%; Pred. No. 6.6e-117;
Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;

QY 359 ACTGGGAGACTGTTAAAGTGGAAACCCAGGGAATCTTGGAAAGTTTGGAGATATCTGT 418
Db 415 ATTGGGATTTGGCATATAAGGCTTCTCTCGGCAATCTCTCAGTTTGAAGACATTTCTCT 474
QY 419 TTGCTAATATGAATGCAAAATTCCTCGGTGATGCTGCTTGTCTCCAACTTCGGTC 478
Db 475 TTGGTACATGATATGTCAGTTCCATCTGCTGTTGGGTGTTAAATGTCGCGAGTTG 534
QY 479 AGAATGGATGTAAGTTGGCTTAGGCTATGTTGATATTAAGAGAGTCTCTTGGTTAA 538
Db 535 ATGCCCAGAGACAGGTTGGAGTTGGGTATGTTGATTCATACAGAGGAACTAGGACTGT 594
QY 539 CAGAAATTTAGATGATAGACCATTCACAAATTTGGAGTCTGCTTGGTTGCTCTGGTT 598
Db 595 GTGAAATTCCTCGAATATGATGATCTCTCCAACTTGGAGTCTCTCCTCATCCAGATTGGAC 654
QY 599 GCAGAGATCTCTTTGACAGCGGAGACTGCGCAATCCAGTGAATACAGGCTATGTTG 658
Db 655 CAAAGGAATGTTTACCGGAG---GAGAGACTGCTGAGACATGGGGAACCTAGAC 711
QY 659 ATGCAATATCTAGATCGGCGTATGTTAACTGAAAGAAAGAACTGAATTTAAAGGGA 718
Db 712 AGATAATTTCAAGAGGAGGAATTTCTGATCAGAAAGAAAGAAAGCTGATTTTCCACAA 771
QY 719 GAGATTGGTACAGGATCTTGGTAGGCTCTGAGGTTCA-----GTAGAAC 766
Db 772 AAGACATTTATCAGGACCTCAACCGGTTGTTGAAGGCAAAAGGAGGAGAGCAGATGAATA 831
QY 767 CTGTTTCAGATTTTGGTCTCTGGGTTGCAATGTCATCAGCGCTTTGGGGTGCATCTTT 826
Db 832 GTGCTGATTTGCCAGAAATGGAATCAGGTTGCGATTTTCATCAGTTCTGCGGGTAAATCA 891
QY 827 CTTATGCAAGAACTTCTGCGGATGAGAGCAACTATGGAATCTATACAGTCAAAACATACA 886

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Db 892 AGTTTTTAGAATCTTATCAGATGATTCCAACTTTGCAAGTTTGAAGTACTGACTACTTTG 951
QY 887 ACCTCAATAGTTATCAGAGATTAGATTTCTCTGCTATGAGAGCACTGAATGTTATGAGA 946
Db 952 ACTTCAGCCAGTATATGAATTTGGATATTCAGCAGTCAGAGCCCTTAACCTTTTCAGG 1011
QY 947 GCAATCAGATGCTAATAAATTTTAGCTTTGCTGCTGATGCAATAGAACGTTACTG 1006
Db 1012 GTTCTGTTGAAGATACCACTGGCTCTCAGTCTCTGGCTGCTGCTGAATAGTATAAA 1071
QY 1007 CTGGAATGGGTAAGGTTATTCATGTCATGTCGCTGAAAGCAACCTTTACTAGATGAGAAG 1066
Db 1072 CCCTCAAGCAGCAAGACTTGTAAACAGTGGATTAAGCAGCTCTCATGGATAGACA 1131
QY 1067 AGATTAACTGTAGGCTGATTTAGTTCAATCATTTGCGGAGGATGCTGCGCTTCGCCAAG 1126
Db 1132 GAATAGAGGAGAGATTCGAATTTAGTGAAGCTTTTGTAGAAGATGCAAAATTTGAGGAGA 1191
QY 1127 ATTGAGGAGCAT---CTGAAAGAAATTTTCAGATTTGAGCGCTGACACACAATCTTG 1183
Db 1192 CTTTACAGAGAAATTTTACCTTCGCTGATTTCCAGATTTAAACCGACTTGCACAGAGTTTC 1251
QY 1184 AGAGGAAAGAGCCAGTTTGTGTCAGCTTTGTAACCTCTATCACTCAAGTACCAGAGTAC 1243
Db 1252 AAAGCAGCAGCAAACTTTACAAGATTTGTACCGACTCTATCAGGATTAATCAACTAC 1311
QY 1244 CATATATCAAAAGTGTGTTGGAAAGCTCATGATGGGCAATTTGCAACACTCATCAGGAAA 1303
Db 1312 CTAATGTTTATACAGGCTCTGGAAAAACATGAGGAAAAACACCAGAAATTTATTTGGCAG 1371
QY 1304 GGTATATTGATTTCTTAGAGAAATGGAGTGCATATAATCACTGAAATAGTTTCATAGTC 1363
Db 1372 TTTTGTGACTCTCTTACTGA-----TCTTGTCTGACTCTCTCCAGTTTCAGGAAA 1425
QY 1364 TTGTGAAAATCTCTGTGACCTTTGATCAACTGAGAAATGGAGAAATACATGATTTCTTCTG 1423
Db 1426 TGATAGAAAACAACTTTAGATATGATCAGTGGAAACCAATGAATTCCTTTGTAACCTT 1485
QY 1424 CATATAGCCAAATTTATCTGCTCTGAAGATGAGCAGAGACATTTGGAGCGGCAATTC 1483
Db 1486 CATTTGATCCTAATCTCAGTGAATTAAGAGAAATAATGAATGACTTTGGAAAAAGAGATGC 1545
QY 1484 ATAAATTTGCACAAACAACTGCCAAATGATCTTCACTCTACCTATTGATAAGTCACTTAAAC 1543
Db 1546 AGTCACATTAATAGTGGCAGCAGAGATCTTGGCTTGGACCTTGGCAACACATTAAC 1605
QY 1544 TAGATAAGAGAAACACAAATTTGGACAGCTCTTCAAGAAATTAACAAAGAGAGAACCAAG 1603
Db 1606 TGGATTCAGTGCACAGTTTGGATATTACTTTCTGCTGTAACCTGTAAGGAGAAAAAGTCC 1665
QY 1604 TCAAGGAGCAGCTAAATTTCTACTACATTTGTTCTCGAAACACATGAGGATGGGTAAGT 1663
Db 1666 TTGCTAA-----CAATAAAAACTTTAGTACTGTAGATATCCAGAGAAATGGTGTAAAT 1719
QY 1664 TCACCTATACAAACCTCAAAAACTAGGAGATCAGTTTCCAGAGAAATTTAGAGAGAGTACA 1723
Db 1720 TTAACCAACAGCAATTTGACTCTTTAAATGAAGATATACCAAAAAATAAACAAATATG 1779
QY 1724 AAAGCTGTGAGAAAGAAATTTGGTAGCTCTGTAGTTTCAAAACAGCTGCGAGTTTCTCGAGG 1783
Db 1780 AAGAGCCAGGATGCAATTTGTAAGAAATTTGTAATTTCTTCCAGCTATGTAGAAC 1839
QY 1784 TGTTCAGGATAGTCTGCTGCTACTTGTGAGTGTGATGATGTTTACTGAGTTTTCGGAT 1843
Db 1840 CAATGCAGACACTCAATGATGTTTAGCTCAGCTAGATGCTGTTGTCAGCTTTGCTCAG 1899
QY 1844 TGGCTGCCAGTTGGCCAACTCCCTACACAAAGCAAAATATCAGTCCACAGATACAGGAG 1903
Db 1900 TGTCAATGAGCACTGTTTCCATATGTAGACACAGCCATTTTGGAGAAAGAGCAAGAA 1959
QY 1904 AVATTATCTTGAAGGGTGTAGGCACTCTTGTGTGGAAGCTCAAGATTTGGGTTAACTCCA 1963
Db 1960 GAATTATATTAAAGCATCCAGGCTGCTTGTGTGAGGTTCAAGATGAAATTTGCATTTA 2019

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QY	1964	TTCTTAATGACTGTAGACTAGTTTGGGGAGAGAGTTGGTTTTCAGATTATCACAGGCCCTA	2023
Db	2020	TTCTTAATGAGCTATCTTTTGA AAAAGATAAAACAGATGTTCCACATCATTTACTTGGCCCCA	2079
QY	2024	ACATGGGTGAAGACTCGACCTACATTCGCGCAGAGTTGGTGTGGAATGTCCTGATGGCCCAAG	2083
Db	2080	ATATGGAGGTAATCAACATATATTTCGA CAAACTGGGGTGATAGTACTCATGGCCCAAA	2139
QY	2084	TTGGCTCGTTTGTTCATGTGACAATGCTACCAATTTCTATTCGTGATGTATTTTGTGCTC	2143
Db	2140	TTGGGTGTTTGTGGCATGTGAGTCAGCAGAAGTGCCATTTGTGACTGCATCTTAGCCC	2199
QY	2144	GTGTTGGCGCTGAGATPAGCCTGAGAGGAGTTTCTACTTTTATTCGAAGAGATGCTTG	2203
Db	2200	GAGTAGGGGTGGTGACAGTCAATTGGAAGGAGCTCTCCAGTTTCATGGCTGAAATGTTGG	2259
QY	2204	AGACTGCATCGATCTTCGAAAGGAGCTACTCATAGATCATTTGATTATAATTTGATGAGTTGG	2263
Db	2260	AAACTGTTCTATCTCCTCAGTCTGCAACCAAGATTCATTTAATTAUCATAGATGAATTGG	2319
QY	2264	GCGTGGGACATCAACCTACGATGGCTTTGGTTTAGCTTGGGCTATTTTGAGCACAATTG	2323
Db	2320	GAAGAGAACTTCTTACCTACGATGGAATTTGGGTTAGCATGGGCTATATCAGAATACATTG	2379
QY	2324	TTGAAGAAATTAAGACACCAATGTTTGGCACTCACTTTTCATGAGCTGACTGCAATTAG	2383
Db	2380	CAACAAAGATTGGTGTCTTTTGCATGTTTGCACCCCAATTTTCATGAACITTTACTGCGCTGG	2439
QY	2384	CCAAAGAAGTGGAGACAATGGACATAAGAAAAATGCTGGGATAGCAAAATTTTCATGTTT	2443
Db	2440	CCAAATCAG-----ATACCAACTGTGTTAATCTACATGTCA	2475
QY	2444	TTGCACATATGACCCCTCTAATCGCAAGCTAACTATGCTTTACAGGTTCAOCCAGGTG	2503
Db	2476	CAGCACTCA-----CCACTGAAGAGACCTTAACATATGCTTTATTCAGCTGAAGAAAGGTG	2529
QY	2504	CTTGTGATCAGATTTTGGTATTTCATGTTGCTGAAATTTGCAAAATTTTCCACCGAGTGTG	2563
Db	2530	TCTGTGATCAAAAGTTTGGGATTCATGTTGCAGAGCTTGCTTAATTTCCCTTAAGCATGTAA	2589
QY	2564	TGGCTCTCGCTAGAGAAAAGCACTCAGTTTGGAGGATTTCTCTCCTATTGCCATAATTC	2623
Db	2590	TAGAGTGTCTAAACAGAAAGCCCTGGAACTTGAGAGGTTTCAGTATATTGGAGAAATCGC	2649
QY	2624	CAAAATGACTTAAAGAGCGCAGCTTCAAAAACGGAAGAGAGAAATTTGA	2669
Db	2650	AAGGATATGATATCATCGAACCCAGCAGCAAGAAGTGTCTATCTGGA	2695

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RESULT 6
US-09-708-200-14
; Sequence 14, Application US/09708200
; Patent No. 6576468
; GENERAL INFORMATION:
; APPLICANT: Nicolaides, Nicholas C
; APPLICANT: Grasso, Luigi
; APPLICANT: Sass, Philip M
; TITLE OF INVENTION: METHODS FOR ISOLATING NOVEL ANTIMICROBIAL AGENTS FROM
; TITLE OF INVENTION: HYPERMUTABLE CELLS
; FILE REFERENCE: MOR-0005
; CURRENT APPLICATION NUMBER: US/09/708,200
; CURRENT FILING DATE: 2000-11-07
; NUMBER OF SEQ ID NOS: 18
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
; LENGTH: 3145
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-708-200-14

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Query Match 13.9%; Score 420.8; DB 4; Length 3145;
Best Local Similarity 51.3%; Pred. No. 6.9e-117;

Matches	1194;	Conservative	0;	Mismatches	1072;	Indels	60;	Gaps	7;
QY	359	ACTGGAGACTGTGTA	AAAAGTGGAA	CCCCAGGGAA	CTTGGAA	CTTTTGGAG	ATATCTCTGT	418	
Db	415	ATTGGTATTGGCA	TATAAGGCTT	CTCTGGCA	AAATCTCTCT	CAGTTTGA	AGACATCTCT	474	
QY	419	TTCCTTAATTAATGA	ATGCAAAATTT	CCGGTGAT	TGCTCTT	TGCTCCAA	CTTCGGTC	478	
Db	475	TGCGTAACATGATAT	GTGAGCTT	CCATTTG	GGTGTTTAA	ATGTCCCGAG	TTG	534	
QY	479	AGAATGGATGTGA	AGTTGGCTAT	GTGTGAT	TATTAAG	AGAGAGTCC	TTGGTTAA	538	
Db	535	ATGCCCAGAGACAG	GTGGATTGG	TATG	TATCCATAC	AGAGAAACTAG	GACTGT	594	
QY	539	CAGAAATTCATGAT	GATGACCACTT	CACAAATTT	GAGAGTCT	GTGTTGGT	TGCTCTGGTT	598	
Db	595	GTGAATTCCTGATA	TATGATCAGTT	CTCCAATCTT	GAGGCTCT	CTCATCC	GATTTGGAC	654	
QY	599	GCAGAGAAATGTCT	TGTACACAGCGG	AGACTGGCAAA	TCCAGTGA	ATACAGGC	CTATGTTG	658	
Db	655	CAAGAAGATGTGTT	TACCCGGAG--	GAGAGACT	CTGGAG	CATGGGAA	ACTTGAGAC	711	
QY	659	ATGCAATATCTAG	ATGCGCGTGAT	GGTAAC	TGAAAGAA	AAAACTGA	ATTTAAAGGGA	718	
Db	712	AGATAATTCAAAG	AGAGGAATTTCT	GATCACAGAA	AAAAAAGCTG	ACTTTTCC	CAAA	771	
QY	719	GAGATTTGGTAC	AGGATCTTGGT	TAGGCTCGTCA	AGGGTTCA-----	GTAGA	AC	766	
Db	772	AAGACATTTATC	AGGACCTCA	CCGGTGTGTTGA	AGGCAAAAGG	AGAGAC	GATGAT	831	
QY	767	CTGTTCCGAGAT	TTGGTCTCTGG	GTTCGAATG	TGCATCAG	CGCGT	TTTGGGTGCAT	826	
Db	832	GTGCTGTATTG	CCAGAAATGG	AGAAATCAG	GTTCAG	TTTCAC	TGCTGCGGTAT	891	
QY	827	CTTATGCAAGAC	CTACTTGGGAT	GAGAGCAACT	ATATGGBAACT	ATACAGT	CAAAACATACA	886	
Db	892	AGTTTTTTAGAAC	TTCTATCAGAT	GTATTC	CAACTTTGG	CAGAGTTTGA	ACTGACTTTTG	951	
QY	887	ACCTCAATAGT	TACATGAGATTAG	ATTTCTGCT	CTATGAG	AGCACTGAA	TGTTATGGAGA	946	
Db	952	ACTTCAGCCAG	TATATGAATTTG	ATATG	CAGCAGT	CAGAGCC	TTAACCTTTTTCAGG	1011	
QY	947	GCAAAATCAGAT	GCTATAAAAA	TTTTTAGCT	TGTTGGTCTG	TGATGAATAG	AAACGTHACTG	1006	
Db	1012	GTTCGTGTTGA	AGATACCACT	GGCTCTCAGT	CTCTGCTG	CTTGGCTGA	ATTAAGTGTAAAA	1071	
QY	1007	CTGGAATGGTAA	AGAGTTATTC	CAATGTGG	CTGGAAGCA	AACTTTACTAG	ATGCTAGAAG	1066	
Db	1072	CCCTCAAGAG	CAAAAGCTTTTAA	CCAGTGAATTA	AGCCTCTCAT	GTGATAGAA	CA	1131	
QY	1067	AGATTAATCTAG	CTGGATTTAG	TTAGTTCA	ATTCGTTGG	AGGATGTC	CGCTTCGCCAAG	1126	
Db	1132	GAATAGAGGAG	AGATTCAATTTAG	TGGAAGCTTTT	GTAGAA	GATGCA	GAATTTGAGGCAGA	1191	
QY	1127	ATTTGAGGCAG	AT--CTGAA	AAAGATTT	CAGATTTG	AGCGCTGC	ACACACAATCTTG	1183	
Db	1192	CTTTACAAGA	AGATTTACTTTC	GTGATTC	CCAGATCTTAA	CCGACTTGC	CAAGAGTTTC	1251	
QY	1184	AGAGGAAAAG	AGCCAGTTTAG	TGTCAG	CTTTGTA	AAACTCTATC	AGTACACAGAGTAC	1243	
Db	1252	AAAGACRAG	CAGCAAACTT	ACAAGATTTG	TACCGACTCT	ATCAGGGT	TATAATCAACTAC	1311	
QY	1244	CATATATCAAA	AGTGTTTTGG	AAAGTCATGAT	GGGCAATTTG	CAACACTCAT	CAGGGAAA	1303	
Db	1312	CTAATGTTATAC	AGGCTCTG	AAAAAATG	AAAGGAAAA	ACCAGGAA	ATTTATTTGTTGCAG	1371	
QY	1304	GGTATATTTGAT	TTCTCTAG	AGAAATGG	AGTGATGAT	ATCACTGAA	TAAAGTTTCATAGGTC	1363	
Db	1372	TTTTTTTGAC	CTCTCTACTGA-----	TC	TTGTTCTG	ACTTCTCC	AGTTTTCAGAAA	1425	
QY	1364	TTGTGGAA	ACTTCTGT	TGACTTTGAT	CAACTTG	AGAATG	GAGAAATCATGATTTCTTCTG	1423	
Db	1426	TGATAGAA	CAAACTTTAG	ATGATGAT	CGGTGAAA	ACCATGAT	TTCTTTGTA	1485	

1424 CATATGACCCAAATTTATCTGCTCTGAAGATGAGCAAGAGACATTTGGAGCGCAATTC 1483
 1486 CATTTGATCTTAATCTCAGTGAATTAAGAAATAATGAATGACTTTGGAAAGAGAGATGC 1545
 1484 ATAAATTGCAACAAACAACTGCCAATGATCTTGATCTTACCTATTGTAAGTCACTTTAAAC 1543
 1546 AGTCAACATTTAATAAGTGCAGCAGAGATCTTGGCTTGGACCTTGGCAACACAGATTAAAC 1605
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 1604 TCAGGAAGCAGCTAAATTTCTCACTCACTTCTTCTGAAACACAGTAAGGATGGGTAAAGT 1663
 1666 TTCGTA-----CAATAAAACCTTAGTACTGTAGATATCCAGAGAATGGGTAAAT 1719
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 1840 CAATGCAGACACTCAATGATGTGTAGTCTGAGTGTAGTGTGTGCTGCTCAG 1899
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 1904 ATATTATCTTGAAGGTGTAGGATCTTGTGTGGAAGCTCAAGATGGTTAACTCCA 1963
 1960 GAATTAATTAAGAAATCAGGATCTGTGTGGAAGTTCAAGATGAATTTGCAATTA 2019
 1964 TTCTTAATGACTGTAGACTAGTTAGGGGAGAGAGTTGGTTTTCAGATTATCACAGGCCCTA 2023
 2020 TTCTTAATGAGTATATCTTTGAAAGAGATAACAGATGTTCCATCATCTTACGGCCCA 2079
 2024 ACATGGTGAAGTGCAGCTCAATTCGGAGGTTGGTGTGAATGCTTCGTGATGCCCAAG 2083
 2080 ATATGGAGGTAAATCAACATATTTTGAACAACTGGGGTGAAGTACTCATGGCCCAA 2139
 2084 TTGGCTGCTTTTGTTCATGTGCAATGCTACCAATTTCTATTCTGATTTGTTTGTCT 2143
 2140 TTGGGTGTTTGTGCTATGTAGTGCAGAGAGTGTCCATTTGGGACTGCATCTTAGCCC 2199
 2144 GTTGTGGCGCTGGAGATTGCCAGCTGAGAGGAGTTTCTACTTTTATGCAAGAGATCTTG 2203
 2200 GAGTAGGGCTGGTGACAGTCAATTTGAAGAGTCTCCAGCTTCAAGCTGAAATGTTGG 2259
 2204 AGACTGCATGATCTTGAAGAGGAGTACTGATAGATCATGATTAATGATGAGTTGG 2263
 2260 AAATCTCTTCTATCTTCAGTCTGCAACCAAGAAATTTCAATTAATCATAGATGAATGG 2319
 2264 GCGTGGGACATCAACTAGATGGCTTTTGTGTTTGTAGCTTTGGGCTATTGTGAGCATTG 2323
 2320 GAAGAGAACTTCTACTCTAGATGGAATTTGGGTGTAGCATGGGCTATATCAGAAATGAT 2379
 2324 TTGAAGAAATTAAGCAACCAATTTTGGCCACTCACCTTTTATGAGCTGACTGCAATTAAG 2383
 2380 CAACAAAGATTTGCTGCTTTTGTGATGTTTGAACCACTTTTATGTAATCTGCTGCTGG 2439
 2384 CCAACAAAGATGAGCAATGAGACATAAGAAATGCTGGGATGAGCAATTTTCAATGTTT 2443
 2440 CCAATCAG-----ATACCACTGTTAATAATCTACATGCA 2475
 2444 TTGCACATTTGACCTTTCTAATCGCAAGCTAATGCTTTTACAGAGTTTCCACCGGTTG 2503
 2476 CAGCACTCA-----CCACTGAAGACCTTTAATGCTTTTATGCTTTTATCAGTGAAGAAAGGTG 2529

2504 CTTGTGATCAGAGATTTTGTATTCTATGCTGCTGAATTTGCABATTTTCCACCGAGTTTG 2563
 2530 TCTGTGATCAAGATTTTGGGATTTCAATTTGTCAGAGCTTGTCTAATTTCCCTTAAGCATGAA 2589
 2564 TGGCTCTGGCTAGAGAAAAGGCACTCTGAGTTGGAGGATTTCTCTCTTAATGCGCATATTC 2623
 2590 TAGAGTGTCTAAACAGAAAGCCCTGGAACCTTGAAGGATTTCAATATTTGGAGATCGC 2649
 2624 CAATGACATTTAAAGAGGCGAGCTTCAAAACGGAAGAGAGAAATTTGA 2669
 2650 AAGGATATGATATCATGGAACCCAGCAGCAAGAAAGTCTATCTGGA 2695

RESULT 7
 US-09-788-657-9
 ; Sequence 9, Application US/09788657
 ; Patent No. 6656736
 ; GENERAL INFORMATION:
 ; APPLICANT: Nicolaides, Nicholas
 ; APPLICANT: Sasse, Philip
 ; APPLICANT: Kinzier, Kenneth
 ; APPLICANT: Grasso, Luigi
 ; APPLICANT: Vogelstein, Bert
 ; TITLE OF INVENTION: Methods for generating hypermutable
 ; FILE REFERENCE: 01107.00097
 ; CURRENT APPLICATION NUMBER: US/09/788,657
 ; CURRENT FILING DATE: 2001-02-21
 ; PRIOR APPLICATION NUMBER: 60/184,336
 ; PRIOR FILING DATE: 2000-02-23
 ; NUMBER OF SEQ ID NOS: 25
 ; SOFTWARE: FastSeq for Windows Version 3.0
 ; SEQ ID NO 9
 ; LENGTH: 3145
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-09-788-657-9

Query Match 13.9%; Score 420.8; DB 4; Length 3145;
 Best Local Similarity 51.3%; Pred. No. 6.9e-117;
 Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;

359 ACTGGAGACTGTATAAAGTGGAAACCCAGAGGAATCTTGGAGTTTGGAGTATTTCTGT 418
 415 ATTGGTATTGGCATATAGGCTTCTCTGGCAATCTCTCAGTTTGAAGACATTTCT 474
 419 TTGCTAATAATGAAATGCAAAATTTCTCCGGTGTGCTGCTCTTGTCTCCAAATCTCGGTC 478
 475 TTGGTAAACAATGATATGTCAGCTTCCATTGGTGTGTGGGTGTTAAATGTCCGAGTTG 534
 479 AGAATGGATGTGAAGTGGCTTAGGCTATGTTGATATTAATAAGAGAGTCTTGGTTAA 538
 535 ATGGCCAGAGACAGGTTGGAGTTGGGTATGTGGAATTCATACAGAGGAACTAGGACTGT 594
 539 CAGAAATTTCTAGATGATAGCCACTTCAAAATTTGGAGTCTCTTGGTGTGCTTGGTT 598
 595 GTGAATTCCTGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 654
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 655 CAAAGAAATGTTTATCCCGGAG--GAGAGACTGCTGGAGACATGGGAAACTGAGAC 711
 659 ATGCAATATCTAGATGCGCGCTGATGGAATCTGAAGAAAGAAAGAACTGAATTTAAAGGA 718
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 832 GTGCTGTTTGCAGAAATGGAGATCAGGTTGTCAGTTTTCATCTGCTGCGGTAAATCA 891

QY 827 CTTATGCGAGACTTTCGGATGAGCAACTATGGAATCTATGAACTATACAGTCAAACTACA 886
 Db 892 AGTTTATGAACTCTTATCAGATGATTCGAACCTTGGCAGTTTGAACTGACTACTTTTG 951
 QY 887 ACCTCAATAGTTATCATGAGATTAGATTCTGCTGCTATGAGAGCACTGAATGTTATGAGA 946
 Db 952 ACTTCAGCCAGTATGAAATGGATATTCAGCAGTTCAGAGCCCTTAACCTTTTTCAGG 1011
 QY 947 GCAATCAGATGCTAATAAATTTTACGTTTGTGCTGCTGATGATGAACTGACTG 1006
 Db 1012 GTTCTGTGTAAGATACCACTGGCTCTCAGTCTCTGGCTGCTTGTGAAATGATGTAATA 1071
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 Db 1192 CTTTACAGAGAGATTTTACTTCTGATTCCTGATTCCTGATCTTAACCGACTTGCACAGATTC 1251
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 Db 1252 AAGACAGCAGCAACTTACAGATTTGTTACCGACTCTATCAGGTTATTAATCAACTAC 1311
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 QY 1304 GGTATATTGATTCCTAGAGAAATGGAGTGTGATGATATCACTCAATTAAGTTTCATAGTC 1363
 Db 1372 TTTTGTGACTCTCTTACTGA-----TCTGCTCTGACTTCTCCAGTTTCAGGAAA 1425
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 Db 1426 TGATAGAAACAATTTAGATATGATCAGGTGGAACCATGATTTCTTGTAAACCTT 1485
 QY 1424 CATATGCCAAATTTATCTGCTCTGAGGATGAGCAAGAGACATTTGGAGCGCAAAATTC 1483
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 Db 1666 TTCGTAA-----CAATAAAACCTTTAGTACTGTAGATATCCAGAAAGTGTCTTAAT 1719
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 QY 1724 AAAGCTGTCAAGAAATTTGTAGCTGCTGATGTTTCAACAGCTGCGAGTTTCTCCAGG 1783
 Db 1780 AAGAAGCCAGGATGCCATTTGTAAGAAATTTGTCATATTTCTTCAGGCTATGTAGAAC 1839
 QY 1784 TGTTGAGGATAGCTGGTACTTGTGATGTTGATGTTGATGTTGATGTTGATGTTGATG 1843
 Db 1840 CAATGCAGACACTCAATGATGTTGATGCTCAGTGTAGTGTGTTGTCAGCTTTGTCACG 1899
 QY 1844 TGGCTGCCAGTTGCCCACTCCCTACACAGCAACCAATATCAGTCCACCATACAGAG 1903
 Db 1900 TGTCAATGGAGACCTTCTCCATATATGACCAACCAAGCAATTTTGGAGAAAGCAAGGAA 1959

QY 1904 ATATTATCTTGAAGGGTGTAGGCATCTTGTGTGGAAGCTCAAGATTGGGTTAACTCCA 1963
 Db 1960 GAATTATATTAAGAGCATCCAGGCACTGTTGTTGTTGAAGTTCAAGATGAATTCATTTA 2019
 QY 1964 TTCTTAATGACTGTAGACTAGTTTAGGGAGAGAGTTGGTTTCAGATATATCACAGGCCCTA 2023
 Db 2020 TTCTTAATGACTGTATCTTTGAAAAAGATAAACAAGATGTTCCACATCATTTACTTGGCCCCA 2079
 QY 2024 ACATGGTGGAAAGTCGACCTACATTCGCGAGGTTGGTGTGATGTCCTGATGCGCCCAAG 2083
 Db 2080 ATATGGAGGTAATCAACATATATTCGACAAATCTGGGGTGAAGTACTCATGCGCCAAA 2139
 QY 2084 TTGGCTCGTTTGTTCATGTCGACCAATGCTACCAATTTCTATTCGTGATTTGATTTTGGCTC 2143
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 QY 2144 GTGTTGGCGCTGGAGATTCGCCAGCTCAGAGGAGTTTCTACTTTTATGCAAGAGATGCTTG 2203
 Db 2200 GAGTAGGGGCTGTGACAGTCAATTTGAAAGGAGTCTCCAGTTTCATGCTGCTGAAATGTTGG 2259
 QY 2204 AGACTCATCGATCTTGAAGGAGGCTACTGATAGATCATTTGATTTAATTTGATGAGTTGG 2263
 Db 2260 AAATCTCTTCTATCTCAGGTCTGCAACCAAGATTCATTTAATCAATAGATGAATGG 2319
 QY 2264 GCGTGGGACATCAACCTACGATGGCTTTGGTTTGTAGCTTTGGGCTATTTGTGACACATTG 2323
 Db 2320 GAAGAGAACTTCTACTACGATGGATTTGGGTTAGCATGGGCTATCAGATACATTG 2379
 QY 2324 TTGAAGAAATTAAGCACCACAACTGTTTGGCCACTCACTTTCTATGAGCTGACTGCAATTAG 2383
 Db 2380 CACAAAGATTTGGTGTCTTTTTCATGTTTGCACCCATTTTCATGAATTTACTTGCCTTGG 2439
 QY 2384 CCAACAGAAATGGAGACAAATGGACATAAGAAATATCTGGGATAGCAAAATTTTCATGTTT 2443
 Db 2440 CCAATCAG-----ATACCACTGTTAATAATCTACATGTCOA 2475
 QY 2444 TTGCACACATTTGACCTCTTAATCGCAAGCTTAATGCTTTTACAAGTTTCAACAGGTTG 2503
 Db 2476 CAGCACTCA-----CCACTGAAGAGACCTTAATATGCTTTTATCAGGTGAAGAAAGGTG 2529
 QY 2504 CTTGTGATCAGATTTTGTGTTTTCATGTTGCTGAATTTGCAAAATTTTCCACCGAGTGTG 2563
 Db 2530 TCTGTGATCAAGTTTGGGATTTCACTTTGTCAGAGCTTGTCTAATTTTCCCTTAAGCATGTA 2589
 QY 2564 TGCTCTGCTGAGAGAAAGGCACTGAGTTGGAGGATTTCTCTCTATTTGCTCAATATTC 2623
 Db 2590 TAGAGTGTCTAAACAGAAAGCCCTGGAATCTGAGGATTTCACTATATTTGGAGATCGC 2649
 QY 2624 CAAATGACATTAAGAGGAGGCTTCAAAACGGAAGAGAGAAATTTGA 2669
 Db 2650 AAGGATATGATATCATGGAACAGCAGCAAGAAAGTGTATCTGGA 2695

RESULT 8

US-09-512-250C-1
 ; Sequence 1, Application US/09512250C
 ; Patent No. 6518042

GENERAL INFORMATION:

; APPLICANT: Borchert, Torben
 ; APPLICANT: Pedersen (Executor for Lars Christiansen, deceased), Dennis
 ; APPLICANT: Vind, Jesper
 ; TITLE OF INVENTION: A process for Making DNA Libraries in Filamentous Fungal Cells
 ; TITLE OF INVENTION: Cells
 ; FILE REFERENCE: 5718.200-US
 ; CURRENT APPLICATION NUMBER: US/09/512,250C
 ; CURRENT FILING DATE: 1999-02-24
 ; NUMBER OF SEQ ID NOS: 33
 ; SOFTWARE: Patent in version 3.1

; SEQ ID NO 1

; LENGTH: 3823

; TYPE: DNA

; ORGANISM: Aspergillus oryzae

FEATURE:
 NAME/KEY: CDS
 LOCATION: (700)..(723)
 OTHER INFORMATION:
 FEATURE:
 NAME/KEY: CDS
 LOCATION: (781)..(3576)
 OTHER INFORMATION:
 FEATURE:
 NAME/KEY: Intron
 LOCATION: (724)..(780)
 OTHER INFORMATION:
 US-09-512-250C-1

Query Match 11.0%; Score 335; DB 4; Length 3823;
 Best Local Similarity 49.4%; Pred. No. 8e-91;
 Matches 1055; Conservative 0; Mismatches 1050; Indels 30; Gaps 6;

QY	493	GTGGCTTAGGCTATGATATTA	CTAAGAGAGTCCCTGGTTTAA	CAGAAATTTCTAGAT	552
DB	1225	GTGGAGTGTGCTTTGGGACG	CAAGTGTACGGAACTCGGT	TTAGCGAGTTCTGGAT	1284
QY	553	GATAGCCACTTCACAAATTT	GGAGTCTGCTTTGGTTGCT	TTGGTTGCGAGAAATGCTT	612
DB	1285	AACGATATCTATTCCAACT	TTGAGTCGCTTATTATCCAA	CTCGGGTGAAGGAGTGTG	1344
QY	613	GTACGAGCGGAGCTGGCAAT	CCAGTGAATACAGCCCTAT	GTTCATGCAATATC---T	669
DB	1345	GTGCAGATGATGCTAATAG	AAGGATGTGAGCTGGGAAG	ATTTCGGCTATTTCGGAT	1404
QY	670	AGATCGGCGGTGATGTGTA	CTGAAGAAAGAAACCTGAA	TTTAAAGGGAGAGATTGGTA	729
DB	1405	AGTTGTGGATCGCTATCT	CCGAGAGCCGGTGGCTGAT	TATGGTCTCAGGATATGAG	1464
QY	730	CAGGATCTTGGTAGGCTCG	TCAAGGTTTCAAGAAACCT	GTGTCGAGATTTGCTCTGGG	789
DB	1465	CAGGATCTCAGCAGGTTGT	TGAGGGATGAACCGTCTGG	TGACGTGCGCGAGACGGAG	1524
QY	790	TTTCAATGTGATCAGCGCT	TTTGGGTGCATCTTTCTAT	TGCGAACTACTTGGCGAT	849
DB	1525	CTAAGCTTGGATGGGCTCG	GGCTCTGCTGATCAAGTA	CTCTGGGCTTATACGGAT	1584
QY	850	GAGAGCAACTATGGAACCT	ATACAGTCAAACTAACAACT	CAATAGTTTACATGAGATTA	909
DB	1585	CCTACAACTTCGGCCAGT	ACCACTCTATCAGCATGAT	TTTTCGCGAGTTTATGAGTTG	1644
QY	910	GATTCGCTGTATGAGACAC	TGATGTTATGAGAGCAAA	TCAAGTCTAATAAAT	969
DB	1645	GATTCGTCGGCGTGGTCT	CTCTTAACTTATGCTGCT	CCGCGGACGGATCGAAGTCT	1704
QY	970	TTTAGCTTCTCGGCTGAT	GAATAGAACTGTACTGCT	CGAATGGTAAAGGTTATG	1029
DB	1705	ATGAGTTTGTGTTTGTG	ATCACTGCAAGACCCCTG	---TTGGTAGCCGGTTGCTT	1761
QY	1030	CACATGTGCTGAAGCAAC	CTTTACTAGATGAGAGAT	TAACTGTAGGCTGGATTTA	1089
DB	1762	CGCGAGTGGCTGAAA	CAGCCGTTGATGATCTG	CGGAGATCGAGAGAGA	CAGCGCTT 1821
QY	1090	GTTCAATCACTCGTGAG	ATGCTGGCTTCCGCAAGAT	TT---GAGGCAAGATCTGAA	1146
DB	1822	GTGAGGCGTGTGTTTAA	CTAAGCGAGCTCAGACAG	ACTATATCAGGAGGAGCAT	CTTCG 1881
QY	1147	AGAAATTCAGATATTGAG	CGGCTGACACAACTCTT	GAGAGAAAGACCCAGTTAG	TG 1206
DB	1882	TCCATACCGGATCTGTAT	AGACTAGCGAAGCGGTT	CCAGCGCAACAGGCAACT	TTGGAA 1941
QY	1207	CAGGTTGTAATAACTCTAT	CAGTCAAGTACCAGAGT	ACCATATATCAAAAGTGT	TTGGAA 1266
DB	1942	GAGGTTGCGGGGTGAC	CAAGTGTGCTATTCG	TTTGGCTGTTTGTCACTCT	CTCGAG 2001
QY	1267	CGTCATGATGGGCAATTT	CGAACACTTCATCAGG	AAAGGATATTTGATTTCT	CTAGAGAA 1326
DB	2002	AATGTTATGGATGAAG	AGTATCAGACGCCCTCG	AGACGGA---GTATACTT	CCAACTC 2058

QY	1327	TGAGTGATGATAATCACT	GAATAGTTCAATAGTCT	TTGTGGAACACTTCTGT	GACCTT 1386
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QY	1387	GATCAACTTGGAGATGGA	ATACTAGTTTCTTCTG	CAATATGACCAAAATTT	ATCTGCT 1446
DB	2119	GATGCGCTGGAGAACCA	CGAGTTTCACTAAGCC	TTGAGTTGACGAGAGT	CTGCGGATC 2178
QY	1447	CTGAAGGATGAGCAAG	AGACATTTGGAGCGACA	AAATTCATAATTTTGCA	CAAAACATCTGCC 1506
DB	2179	ATCAGGAAGAGCTGGAC	CAAGTCCGTCAATGAT	TGCGGCTTGAGCACCG	CAGGGTAGCT 2238
QY	1507	AATGATCTTGATCTACT	TATTAAGTCACTTAAC	TAGATAAAGAAACAC	AAATTTGGA 1566
DB	2239	CGGGACCTTGGACCAAG	ATATTGAGAAAGTTGT	TCTCGGAACACACAGG	GTGACGGA 2298
QY	1567	CACGCTTTCAGAAATTA	CCAAAGAAAGAACCA	AAAGTCAGGAAGCAG	CTAAATCTCAC 1626
DB	2299	TGGTCTTTCGACTTACT	CGCAACGAGTCGGAT	GCATCCGCAANTAG	AGAGATCACGAG 2358
QY	1627	TACATTTGTTCTCGAAA	CACGTAAGGATGGGT	TAAAGTTCCACTATACA	AAAACTCAAAAAA 1686
DB	2359	GAATGTTCT-----	ACACAGAAAGACGGT	GTCTACTTCACTACGT	CGACTATGCAAAAC 2412
QY	1687	CTAGGAGATCAGTCCAG	NAAGATTGTAGAGGAG	TACAAAAGCTGTTCAG	AAAGATTTGGA 1746
DB	2413	TTGCCCGGAGCATGAT	CACTGCTCGAACTACA	ATAGAACTCAGACCG	CGGCTGGTG 2472
QY	1747	GCTGTGTAGTTTCAAA	CACAGCTCGAGTTTCT	CCGAGGTGTTTGCAGG	TATAGTGTGTA 1806
DB	2473	AATGAGTCTGTTAA	CGTTGCCGCTCTACT	GTCTCTGTTTGGAA	CGACTTSCGGTGTG 2532
QY	1807	CTTGTGAGTTGGATGTT	ACTGATTTTTCGGAAT	TGGCTGCCAGTTGCCAA	CTCC 1866
DB	2533	ATAGCACACCTCGAT	GTCTATTGTAAGCTCG	CTCATGCTTCTGTT	CATCGCGACCC 2592
QY	1867	TACACAGACCAAAAT	CAGTCCACAGATACAG	AGATATTTATCTTGA	AGGGTGTAGG 1926
DB	2593	TATGTCGCGCCCAAG	ATGCCACCGAGGCAC	CCGGAACACAGATT	CTCAAGGAAGCGCG 2652
QY	1927	CATCTGTGTGGAAGCT	CAAGATTGGGTTAACT	CCATTCCTAAATGAC	TGTAGACTTAGTT 1986
DB	2653	CACCCCTGTATGGA	AAATGAGAGTCAAT	TTTCATTCATTA	CTTAATGATGCGCTTGGT 2712
QY	1987	AGGGAGAGAGTTGTT	TCAGATTATCAAGCC	CTTAACATGGGTGGA	AAATGCGACCTAC 2046
DB	2713	CGAGACGAGTCTCCT	CTCTCATCATTTACT	GTCTTAACATCGGAG	GTAAATCGACTTAT 2772
QY	2047	ATTGCGGAGGTTGGT	GTGAATGCTCTGAT	TGGCCCAAGTTGGCT	CTGTTTTCATGTGAC 2106
DB	2773	ATTGCCAAATTTGGT	GTATTATGCTCTCAT	TGGCTCAGACGGGCT	GTCTTTGTGCTTGTACA 2832
QY	2107	AATGCTACCATTTCT	ATTTCGTTGATTTT	TGCTCGTTGGGCT	TGGAGATTGCCAG 2166
DB	2833	GAAGCAGATTTGACCA	TCATTGACTGTATCT	TTCACGTTGGTGCA	AGTGTATTCACAG 2892
QY	2167	CTGAGAGGAGTTTCTA	CTTTTATGCAAGAGAT	GTCTTGAGATCGCAT	TCGATCTTGAAGA 2226
DB	2893	CTCAAGGGAGTTTCCA	CTTTTCATGCTGAGAT	GTCTCGAAACATCCA	ATCTCCTCAAGTCG 2952
QY	2227	GCTACTGTATGATCAT	TCATTCATTAATTA	TGATGATGGCGCT	TGGGACATCACTTACGAT 2286
DB	2953	GAACGTCGAGTCTCT	TTTATCATCATTC	ACGAGCTTGGCGCGG	TACAGCACGATATGAC 3012
QY	2287	GGCTTTGGTTTAGCT	TTGGGCTATTTGT	GAGCACATTTGT	TGAAGAAATTAAGCA 2346
DB	3013	GGATTCGCTTAGCAT	GGCCATCTCTGA	CACATCGTCACAG	ATTCGTTGCTTCGCG 3072
QY	2347	TTGTTTGCACCTCACT	TTTCATGAGCTGT	CACTGATTTAGCCA	ACAGAAATGGAGACA 2406
DB	3073	CTTTTCGCTACTCACT	TCTCCATGAATTG	CAGCTCTCGCCGAT	TCGATACCCCAAGTCTGTC 3132


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Db 304 TCTGCAACCAAGATTCAATTAATCATAGATGAATTTGGGAAGAGGAACTTCTACCTAC 363
QY 2284 GATGGCTTTGGTTAGCTTGGGTATTTGTGAGACATTTGTGAAGAAATTAAGACCA 2343
Db 364 GATGGATTTGGGTAGCATGGGTATATCAATGATGATGATGATGATGATGATGATGAT 423
QY 2344 ACATTTGTTGCCACTCACTTTTCATGAGTCACTGATGATGATGATGATGATGATGATGAT 2403
Db 424 TGCAATGTTGCAACCACTTTTCATGATGATGATGATGATGATGATGATGATGATGATGAT 483
QY 2404 GACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2463
Db 484 AAT-----AATCTACATGTCACAGCACTCA-----CCACT 513
QY 2464 AATCGCAAGCTAACTATGCTTTCAAGGTTCAACCGGCTGCTGATCAGATGTTTGGT 2523
Db 514 GAAGAGACCTTAATGCTTTTATCAGGTGAAGAAAGGCTGCTGATCAAGTTTGGG 573
QY 2524 ATTCAATGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2583
Db 574 ATTCAATGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 633
QY 2584 GATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2643
Db 634 GCCTGGAACCTTGAGGAGTTTCAGTATATTTGGGAATCGCAAGGATGATGATGATGATGATGAT 693
QY 2644 GCTTCAAAACGGAAGAGAGATTTGA 2669
Db 694 CCAGCAGCAAGAAGTCTATCTGGA 719

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RESULT 11

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US-08-956-171E-231/c
; Sequence 231, Application US/08956171E
; Patent No. 6593114
; GENERAL INFORMATION:
; APPLICANT: Charles Kunsch
; Gil H. Choi
; Patrick S. Dillon
; Craig A. Rosen
; Steven C. Barash
; Michael R. Fannon
; TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 5256
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/956,171E
; FILING DATE: 20-Oct-1997
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/009,861
; FILING DATE: January 5, 1996
; APPLICATION NUMBER: 08/781,986
; FILING DATE: January 3, 1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Mark J. Hyman
; REGISTRATION NUMBER: 46,789
; REFERENCE/DOCKET NUMBER: P248P1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (240) 314-1224
; TELEFAX: (301) 309-8439
; INFORMATION FOR SEQ ID NO: 231:

```

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; SEQUENCE CHARACTERISTICS:
; LENGTH: 3159 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; SEQUENCE DESCRIPTION: SEQ ID NO: 231:
US-08-956-171E-231

Query Match 4.5%; Score 136.8; DB 4; Length 3159;
Best Local Similarity 51.1%; Pred. No. 8.9e-31;
Matches 380; Conservative 0; Mismatches 352; Indels 12; Gaps 2;

QY 1640 AAACACGTAAGGATGGGTAAACTTCACCTATACAAACAACTCAAAACACTAGGAGATCAGT 1599
Db 2300 AAACGTTATCGAATGCTGCAAGCTTTTATACTGATGAACCTTAAGAAAGAAAGATATCA 2241
QY 1700 TCCAGAAGATTTGAGAGGAGTACAAAGAGCTGTACAGAAAGAAATTTGGTAGCTCGTGTAGTTC 1759
Db 2240 TTTTAGTTCGGAAGACAAAGCCATCGAATTAGAATATCAATATTTTGTTCAGCTACGTG 2181
QY 1760 AAACAGCTGGAGTTTCTCGAGGTGTTTGCAGGTATAGCTGTGTGCTGTGCTGTGCTGTGCTGTG 1819
Db 2180 AAGAAGTTAAAAAATATATCTGAACGTTTACAAACAAGCTAAAAATTTTTCAGAGTAG 2121
QY 1820 ATGCTGTACTGAGTTTTCGGGATTTTCGCTGCCAGTTTCCCAACTCCCTACACAAGACCAA 1879
Db 2120 AITGTTTACAGACTTTTGCAGAAATTTGCTCAA-----AATATATTTACCTAGGCTT 2067
QY 1880 ATATCAGTCCACAGATACAGGAGATATTTACTTGAAGGGTGTAGGCACTCCCTGTGTGTTGG 1939
Db 2066 CATTTAGTGAAATAAACAATTAGA-----ATTAGTGAATCTAGGCCACCCAGTAGTGG 2013
QY 1940 AAGCTCAAGATTTGGTTTAACTCCATTCCTTAATGACTGTAGACTAGTTAGGGGAGAGATT 1999
Db 2012 AAAGATAATGGAATTAATGACTATGTGCTTAATAATTTGTCGATTTAGATAAATGAACAT 1953
QY 2000 GGTTCAGATTTATCAGAGCCCTTAACATGGTGGAAAGTCGACCTACATTCGCGCAGTTG 2059
Db 1952 TTATATATTTAATACAGGTCCGAATATGTCGTGTAATTCGACATATATGAGACAAGTTG 1893
QY 2060 GGTGAATGCTCTGATGGCCCAAGTTGGCTGCTTGTTCATGTGACAAATGCTACCAATTT 2119
Db 1892 CCATAATTAGTATAATAGGCCCAATGGAGCTTATGTCCCTTCTAAGAGGCGAGTGTAC 1833
QY 2120 CTATTCGTGATTTATTTTGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2179
Db 1832 CTATATTTGATCAAAATATTTCACTAGATAAGTGGCGCAGATGATTTGGTTTCAGGTAAGA 1773
QY 2180 CTACTTTTATGCAAGAGATGCTTTGAGACTGCTGATGCTTGAAGGAGCTACTGATAGAT 2239
Db 1772 GTACGTTTATGTTAGAAATGCTAGAGACCAAAAGGCATTAATTATGCAACAGAGATA 1713
QY 2240 CATTGATTAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2299
Db 1712 GTTTGATTTATTTTCGATGAATTTGGACGTTGTAATTTCAACGATGACGGTTAGCTTTAG 1653
QY 2300 CTTGGGCTATTTGTGAGACATTTGTTGAAGAAATTAAGACCAACCAATTTGTTTGCACCTC 2359
Db 1652 CGCAGGCAATGATAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1593
QY 2360 ACTTTCATGAGCTGACTGCAATTAG 2383
Db 1592 ATTATCAAGAAATTGACAACATTTAG 1569

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RESULT 12

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US-08-743-637B-31
; Sequence 31, Application US/08743637B
; Patent No. 5994066
; GENERAL INFORMATION:
; APPLICANT: BERGERON, Michel G.
; APPLICANT: PICARD, Francois J.
; APPLICANT: OUELLETTE, Marc

```

APPLICANT: ROY, Paul H.
 TITLE OF INVENTION: SPECIES-SPECIFIC AND UNIVERSAL DNA
 TITLE OF INVENTION: PROBES AND AMPLIFICATION PRIMERS TO RAPIDLY DETECT AND
 TITLE OF INVENTION: IDENTIFY COMMON BACTERIAL PATHOGENS AND ASSOCIATED
 TITLE OF INVENTION: ANTIBIOTIC RESISTANCE GENES FROM CLINICAL SPECIMENS ...
 NUMBER OF SEQUENCES: 273
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: QUARLES & BRADY
 STREET: 411 EAST WISCONSIN AVENUE
 CITY: MILWAUKEE
 STATE: WISCONSIN
 COUNTRY: USA
 ZIP: 53202-4497
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/743,637B
 FILING DATE: 04-NOV-1996
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/526,840
 FILING DATE: 11-SEP-1995
 ATTORNEY/AGENT INFORMATION:
 NAME: BAKER, Jean C.
 REGISTRATION NUMBER: 35,433
 REFERENCE/DOCKET NUMBER: 850586.90012
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (414) 277-5000
 TELEFAX: (414) 277-5591
 INFORMATION FOR SEQ ID NO: 31:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 3754 base pairs
 TYPE: nucleic acid
 STRANDEDNESS: double
 TOPOLOGY: linear
 MOLECULE TYPE: DNA (genomic)
 ORIGINAL SOURCE:
 ORGANISM: Streptococcus pneumoniae

Query Match 4.5%; Score 135.8; DB 2; Length 3754;
 Best Local Similarity 52.6%; Pred No. 2e-30;
 Matches 349; Conservative 0; Mismatches 302; Indels 12; Gaps 2;
 QY 1714 GAGAGTACAAAAGCTGCAGAAAGAAATGGTAGCTCGTGTAGTTCACAAAGCTGCGAGT 1773
 DB 2483 GAGAAGTCAGCAACCTCGAATACGAAATATTTATGCGCATTCGTGAAGAGTTCGCAAG 2542
 QY 1774 TTCTCCGAGGTGTTGCGAGGTATAGCTGGTGTACTTGTGCTGAGTTGGATGTTACTGAGT 1833
 DB 2543 TACATCCAGCTTTACAGAGCTTAGCCCAAGAAATGGGAGCTGTGATGTTCTTACAGAGT 2602
 QY 1834 TTTCGGATTTGGTCCGAGTTGCGCAACTCCCTACACAGACCAAAATATCAGTCCACCA 1893
 DB 2603 CTGGCGGTGTTGGCTG-----AAACCAGCATTTGATTCGACCTGATTGGTGAC 2653
 QY 1894 GATCAGAGATATATATCTTAAGGGGTGTTAGGATCCTTGTGTTGGAAGCTCAAGATTGG 1953
 DB 2654 GATTACAAAATGATATCCGAAAGGG--CGCCATGCTGTGTTGAAAGGTTATGGGG 2710
 QY 1954 GTTAACCTCCTTAATGACGTGTAGATAGTTAGGGGAGAGAGTTGTTTCAATATC 2013
 DB 2711 GCTCAGACTTATTCCTAAATACGATTTCAGATGGCAGAAATACAGTATTCATTTGTT 2770
 QY 2014 ACAGCCCTTAACATGGGTGGAAGTCGACCTACATTCGCGAGGTTGGTGAATGCTGT 2073
 DB 2771 ACAGGCCAACAATGAGTGGAGTCTACCTATATGCTGATGCTAGTACCAACGCGGTT 2830
 QY 2074 ATGCCCAAGTGGCTCGTTGTTTCCATGTGCAATGCTACCATTTCTTATTCGTGATTGT 2133

Db 2831 ATGGCCAGCTGGGTCTCTATGTTCTGCTGAAAGGCCCATTTACCCATTTTTCATCGG 2890
 QY 2134 ATTTTGTCTGTGTTGGCGCTGGAGATTGCGAGCTGAGAGGAGTTTCTACTTTTATGCAA 2193
 Db 2891 ATTTTATCCCGTATCGGAGCAGCAGATGACTTGGTTTTCGGGTGAGTCAACCTTTATGGTG 2950
 QY 2194 GAGATGCTTGAGACTGCGATCGATCTTGAAGAGCTACTGATAGATCATTGATTATATT 2253
 Db 2951 GAGATGATGGAGGCCAATAATGCGCATTTGCGATCGCAAGAACTCTCTCATCTCTTT 3010
 QY 2254 GATGAGTTGGCGCGCTGGGACATCAACCTACGATGCTTTTGGCTTTAGCTTGGCTTATTTGT 2313
 Db 3011 GATGAATTTGGGACGCTGGAACCTTATGACGGGATGGCTCTTGTCTAGTCCCATCATC 3070
 QY 2314 GAGCACATTTGTTGAAGAAATTAAGACCAACATTTGTTGCACTCATCTTTCATGAGCTG 2373
 Db 3071 GAATATATCCATGAGCACATCGGAGCTAAGACCCCTCTTTGGAGCCCACTACCATGAGTTG 3130
 QY 2374 ACT 2376
 Db 3131 ACT 3133

RESULT 13
 US-08-526-840B-31
 ; Sequence 31, Application US/08526840B
 ; Patent No. 6001564
 ; GENERAL INFORMATION:
 ; APPLICANT: BERGERON, Michel G.
 ; APPLICANT: OUELLETTE, Marc
 ; APPLICANT: ROY, Paul H.
 ; TITLE OF INVENTION: SPECIFIC AND UNIVERSAL PROBES AND
 ; TITLE OF INVENTION: AMPLIFICATION PRIMERS TO RAPIDLY DETECT AND IDENTIFY
 ; TITLE OF INVENTION: COMMON BACTERIAL PATHOGENS AND ANTIBIOTIC RESISTANCE GENES
 ; TITLE OF INVENTION: FROM CLINICAL SPECIMENS FOR ROUTINE DIAGNOSIS IN ...
 ; NUMBER OF SEQUENCES: 177
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: QUARLES & BRADY
 ; STREET: 411 East Wisconsin Avenue
 ; CITY: Milwaukee
 ; STATE: Wisconsin
 ; COUNTRY: USA
 ; ZIP: 53202-4497
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent In Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/526,840B
 ; FILING DATE: 11-SEP-1995
 ; CLASSIFICATION: 435
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/304,732
 ; FILING DATE: 12-SEP-1994
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: BAKER, Jean C.
 ; REGISTRATION NUMBER: 35,433
 ; REFERENCE/DOCKET NUMBER: 850586.90012
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (414) 277-5000
 ; TELEFAX: (414) 277-5591
 ; INFORMATION FOR SEQ ID NO: 31:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 3754 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: double
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: DNA (genomic)
 ; ORIGINAL SOURCE:
 ; ORGANISM: Streptococcus pneumoniae
 ; US-08-526-840B-31

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Query Match      4.5%; Score 135.8; DB 3; Length 3754;
Best Local Similarity 52.6%; Pred. No. 2e-30;
Matches 349; Conservative 0; Mismatches 302; Indels 12; Gaps 2;

QY 1714 GAGGAGTACAAAGCTGTGAGAAAGATGGTAGTCTCGTGTAGTTCAAACAGCTGCGAGT 1773
    |||||
Db 2483 GAGAAGTCAGCCAACTCGAATACGAATATTTATGCGCATTCGTGAAGAGGTCGGCAAG 2542

QY 1774 TTCTCCGAGGTGTTGAGGTATAGTGGTGTACTTCTGCTGAGTGGATGTTACTGAGT 1833
    |||||
Db 2543 TACATCAGCGGTTTACAGCTCTAGCCCAAGGAATTCGACGGTGTGATGCTTACAGAGT 2602

QY 1834 TTTCGCGATTGTCGTCAGTTCGCCAATCCCTTACACAAGACCAATATCAGTCCACCA 1893
    |||||
Db 2603 CTGGCGGTTTGGCTG-----AAACCCAGCAATTTGATTCGACCTGAGTTTGGTGAC 2653

QY 1894 GATACAGGAGATATTATCTTGAAGGGTGTAGGATCCCTTGTGTGGAAGCTCAAGATTGG 1953
    |||||
Db 2654 GATTCAAAATTGATATCCGGAAGGG---CGCCATGCTCTCGTTGAAAAGGTTATGGGG 2710

QY 1954 GTTAACTCCATTCCTAATGACTGTAGACTAGTTAGGGGAGAGAGTGGTTTCAGATTATC 2013
    |||||
Db 2711 GCTCAGACCTATATTCAAATACGATTTCAGATGGCAGAGATACCAATATTCAATTGGTT 2770

QY 2014 ACAGGCCCTAACATGGGTGGAAGTCCAGCTACATTCGGCAGGTTGGTGTGAATGTCCTG 2073
    |||||
Db 2771 ACAGGCCCAACATGAGTGGGAAGTCTACCTATATGCTCAGTTAGCCATGACGGCGGTT 2830

QY 2074 ATGGCCCAAGTTGGCTGTTGTTTCCATGNGACAATGTACCAATTTCTATTCGTGATTGT 2133
    |||||
Db 2831 ATGGCCCAAGTTGGCTGTTTCTATGTTCTGCTGAAAGGCCCAATTTACCGATTTTGTATGCG 2890

QY 2134 ATTTTGTGCTGCTGTCGCTGAGATTCGAGATTCAGCTGAGAGGATTTCTACTTTATGCRA 2193
    |||||
Db 2891 ATTTTACCCGATTCGAGCAGCAGATGACTTGGTTTCGGGTGAGTCAACCTTTATGGTG 2950

QY 2194 GAGATGCTTGAGACTGCATCGATCTTTGAAAGGAGCTACTGATAGATCAITGATTATAAT 2253
    |||||
Db 2951 GAGATGATGAGGCCAATATGATCCATTTGCGATGCGACCAAGAACTCTCTCATTTCTCTTT 3010

QY 2254 GATGAGTTGGCGGTGGGACATCACTACGATGGCTTTGGTTTGTAGTGGGCTATTGTTGT 2313
    |||||
Db 3011 GATGAATTGGGAGCTGGAATGCACTGATGACGGATGCTCTTGTCTCAGTCCATCATC 3070

QY 2314 GAGCACAATGTTCAAGAAATTAAGACCAACCAATTTGTCACCTACATTTTCATGAGCTG 2373
    |||||
Db 3071 GAATATATCCATGAGCAGATCGAGAGCTAAGACCCCTCTTTGCGACCCCACTACCATGAGTTG 3130

QY 2374 ACT 2376
    |||
Db 3131 ACT 3133

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RESULT 14
US-08-961-527-63
; Sequence 63, Application US/08961527
; Patent No. 6420135
; GENERAL INFORMATION:
; APPLICANT: Charles Kunsch
; TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 391
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text

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; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/961,527
; FILING DATE:
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Brookes, A. Anders
; REGISTRATION NUMBER: 36,373
; REFERENCE/DOCKET NUMBER: PB340P1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (301) 309-8504
; TELEFAX: (301) 309-8512
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7760 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; US-08-961-527-63

Query Match      4.5%; Score 135.8; DB 4; Length 7760;
Best Local Similarity 52.6%; Pred. No. 3.1e-30;
Matches 349; Conservative 0; Mismatches 302; Indels 12; Gaps 2;

QY 1714 GAGGAGTACAAAGCTGTGAGAAAGATGGTAGTCTCGTGTAGTTCAAACAGCTGCGAGT 1773
    |||||
Db 1802 GAGAAGTCAGCCAACTCGAATACGAATATTTATGCGCATTCGTGAAGAGGTCGGCAAG 1861

QY 1774 TTCTCCGAGGTGTTGAGGTATAGTGGTGTACTTCTGCTGAGTGGATGTTACTGAGT 1833
    |||||
Db 1862 TACATCAGCGGTTTACAGCTCTAGCCCAAGGAATTCGACGGTGTGATGCTTACAGAGT 1921

QY 1834 TTTCGCGATTGTCGTCAGTTCGCCAATCCCTTACACAAGACCAATATCAGTCCACCA 1893
    |||||
Db 1922 CTGGCGGTTTGGCTG-----AAACCCAGCAATTTGATTCGACCTGAGTTTGGTGAC 1972

QY 1894 GATACAGGAGATATTATCTTGAAGGGTGTAGGATCCCTTGTGTGGAAGCTCAAGATTGG 1953
    |||||
Db 1973 GATTCAAAATTGATATCCGGAAGGG---CGCCATGCTCTCGTTGAAAAGGTTATGGGG 2029

QY 1954 GTTAACTCCATTCCTAATGACTGTAGACTGTAGTTCAGGAGAGAGTGGTTTCAGATTATC 2013
    |||||
Db 2030 GCTCAGACCTATATTCCAAATAGATTTCAGATGGCAGAGATACCAATATTTCACTGGTT 2089

QY 2014 ACAGGCCCTTAACATGGGTGGAAGTCCAGCTACATTCGGCAGGTTGGTGTGAATGTCCTG 2073
    |||||
Db 2090 ACAGGCCCAACATGAGTGGGAAGTCTACCTATATGCGTCACTAGCCATGACGGCGGTT 2149

QY 2074 ATGGCCCAAGTTGGCTGCTGTTTGTTCATGTGACAATGCTACCAATTTCTATTCGTGATTGT 2133
    |||||
Db 2150 ATGGCCCAAGTGGGTTCCTATGTTCTGCTGAAAGCGCCCAATTTACCGATTTTGTATGGG 2209

QY 2134 ATTTTGTCTGCTGTTGGCGCTCGAGATTGCCAGCTGAGAGGAGTTTCTACTTTTATGCRA 2193
    |||||
Db 2210 ATTTTACCCGATTCGAGCAGCAGATGACTGTTTGGGTGAGTCAACCTTTATGGTG 2269

QY 2194 GAGATGCTTGAGACTGCATCGATCTTTGAAAGGAGCTACTGATAGATCAITGATTATAAT 2253
    |||||
Db 2270 GAGATGATGAGGCCCAATATGCAATTCGCAATTCGCAATTCGCAATTCCTCTCATTTCTTT 2329

QY 2254 GATGAGTTGGCGGTGGGACATCAACCTACGATGCTTGGTTTGTAGTGGGCTATTGTTGT 2313
    |||||
Db 2330 GATGAATTGGGAGCTGGAACCTGCAACTTATGACGGGATGGCTCTTGTCTCAGTCCATCATC 2389

QY 2314 GAGCACAATGTTGAAAGAAATTAAGACCAACCAATTTGTCACCTACCTTTTCATGAGCTG 2373
    |||||
Db 2390 GAATATATCCATGAGCAGATTCGAGAGCTAAGACCCCTCTTTGCGACCCCACTACCATGAGTTG 2449

QY 2374 ACT 2376
    |||
Db 2450 ACT 2452

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RESULT 15
 US-09-543-681A-2786
 ; Sequence 2786, Application US/09543681A
 ; Patent No. 6605709
 ; GENERAL INFORMATION:
 ; APPLICANT: GARY BRETON
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PROTEUS MIRABILIS
 ; FILE REFERENCE: 2709.1002-001
 ; CURRENT APPLICATION NUMBER: US/09/543.681A
 ; CURRENT FILING DATE: 2000-04-05
 ; PRIOR APPLICATION NUMBER: US 60/128,706
 ; PRIOR FILING DATE: 1999-04-09
 ; NUMBER OF SEQ ID NOS: 8344
 ; SEQ ID NO 2786
 ; LENGTH: 2625
 ; TYPE: DNA
 ; ORGANISM: Proteus mirabilis
 US-09-543-681A-2786

 Query Match 4.4%; Score 132.8; DB 4; Length 2625;
 Best Local Similarity 53.0%; Pred. No. 1.3e-29;
 Matches 284; Conservative 0; Mismatches 252; Indels 0; Gaps 0;

Qy	1922	GTAGGCATCCTTGTGTGAAGCTCAAGATTGGGTTAACTCCATTCCTTAATGACTGTAGAC	1981
Db	1908	GTGACGCTCACCCCTGTTGTAGAACAGTACTGAGTGAGCCATTTATCTCAACCCCTCTAC	1867
Qy	1982	TAGTTAGGGAGAGAGTTGGTTTCAGATTATCACAGGCCCTTAACATGGGTGGAAAGTCGA	2041
Db	1868	AACTCGGCCCTCAACGCGCTACTCATTTATACCGGCCCTTAATGCGCGGTAAAGTA	1927
Qy	2042	CCTACATTCGCGAGGTTGGTGTGAATTCCTGATGCGCCCAAGTTGGCTCGTTTGTCCAT	2101
Db	1928	CCTATATGCGTCAAGCGGCATTAATTACGCTACTGCGCTTATATTGGTAGTTTGTGCGCG	1987
Qy	2102	GTGACATGCTACCATTTCTATCGTATGTTATTTTGTCTGTTGCTGTTGGCGCTGGAGTT	2161
Db	1988	CAGAAAAGCGGTAAATAGGCCCAATTGATCGTATTTTACCCCGGTGGGTGCCTCTGAOG	2047
Qy	2162	GCCAGCTGAGAGGAGTTTCTACTTTTATGCAAGAGATGCTTGAGACTGCATCGATCTTGA	2221
Db	2048	ATCTGGCTTCGGGTCGTTCAACATTTATGGTGAATGACAGAAACCGCAATATCCTTC	2107
Qy	2222	AAGGAGCTACTGATAGATCATTTGATTAATAATGATGAGTTGGCGCGTGGGACATCAACCT	2281
Db	2108	ATAATGCCACTGAAAAACAGTTTAGTGTAAATGGATGAAATTGGCCGAGGCACCTTCTACTT	2167
Qy	2282	ACGATGGCTTTGGTTTAGCTTGGCTATTCTTGAGCACATTTGTGAAGAAATTAAGCAC	2341
Db	2168	ATGATGGGCTTTCCTCGCTTGGGCTTGTGCCGAAATTTAGCGAATCGCATTAAGCGA	2227
Qy	2342	CACATTTGTTGCCACTCAGTTTCATGAGCTGACTGCATTAGCCCAAGAAATGAGACA	2401
Db	2228	TGACACTTTTGGCCACACACTATTTGAAATTAACGACACTGCCAGAAAACACTAGAAGCA	2287
Qy	2402	ATGACATAGAAGAAATGCTGGGATAGCAATTTTCATGTTTTCACACATTGAC	2457
Db	2288	CTGCCAATATTCACTTAGATGACGATGAGGAGAACTATTGCTTTATGCAC	2343

Search completed: April 9, 2004, 06:53:04
 Job time : 216 secs

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: April 9, 2004, 06:45:13 ; Search time 1017 Seconds

(without alignments)
11187.987 Million cell updates/sec

Title: US-10-029-065-1

Perfect score: 3033

Sequence: 1 ataaaggttaagaaataa.....tatcttatatgtcacaataa 3033

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 2475585 seqs, 1875730760 residues

Total number of hits satisfying chosen parameters: 4951170

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications NA:

- 1: /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq.*
- 2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq.*
- 3: /cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq.*
- 4: /cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq.*
- 5: /cgn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq.*
- 6: /cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq.*
- 7: /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq.*
- 8: /cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq.*
- 9: /cgn2_6/ptodata/2/pubpna/US09A_PUBCOMB.seq.*
- 10: /cgn2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq.*
- 11: /cgn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq.*
- 12: /cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq.*
- 13: /cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq.*
- 14: /cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq.*
- 15: /cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq.*
- 16: /cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq.*
- 17: /cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq.*
- 18: /cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3033	100.0	3033	14	US-10-029-065-1 Sequence 1, Appli
2	3011.2	99.3	3033	14	US-10-029-065-3 Sequence 3, Appli
3	1231	40.6	2841	12	US-10-425-114-31788 Sequence 31788, A
4	1063.2	35.1	2151	12	US-10-424-599-71262 Sequence 71262, A
5	825	27.2	1954	12	US-10-425-114-12569 Sequence 12569, A
6	706.4	23.3	1723	12	US-10-425-114-3918 Sequence 3918, Ap
7	685.8	22.6	5307	14	US-10-270-839-48 Sequence 48, Appl
8	627.6	20.7	1124	12	US-10-424-599-141791 Sequence 141791, A
9	422.4	13.9	3080	14	US-10-171-581-78 Sequence 78, Appl
10	422.4	13.9	3161	15	US-10-062-674-1794 Sequence 1794, Ap
11	420.8	13.9	2805	14	US-10-109-791A-3 Sequence 3, Appli
12	420.8	13.9	3145	9	US-09-788-657-9 Sequence 9, Appli
13	420.8	13.9	3145	10	US-09-912-697-9 Sequence 9, Appli
14	420.8	13.9	3145	10	US-09-760-285-21 Sequence 21, Appl
15	420.8	13.9	3145	12	US-10-342-887-455 Sequence 455, App

16	420.8	13.9	3145	14	US-10-270-839-30	Sequence 30, Appl
17	420.8	13.9	3145	14	US-10-243-130-12	Sequence 12, Appl
18	420.8	13.9	3145	14	US-10-371-857-15	Sequence 15, Appl
19	420.8	13.9	3145	14	US-10-371-634-10	Sequence 10, Appl
20	420.8	13.9	3145	14	US-10-348-074-8	Sequence 8, Appli
21	420.8	13.9	3145	14	US-10-369-845-14	Sequence 14, Appl
22	291.4	9.6	2793	15	US-10-369-493-27560	Sequence 27560, A
23	288.4	9.5	2895	15	US-10-369-493-25709	Sequence 25709, A
24	288.4	9.5	2901	14	US-10-109-791A-2	Sequence 2, Appli
25	186.2	6.1	403	15	US-10-062-674-1322	Sequence 1322, Ap
26	168.6	5.6	311	14	US-10-029-065-15	Sequence 15, Appl
27	165.4	5.5	314	14	US-10-029-065-14	Sequence 14, Appl
28	163	5.4	2547	12	US-10-282-122A-36266	Sequence 36266, A
29	160.8	5.3	2847	12	US-10-282-122A-16980	Sequence 16980, A
30	159	5.2	314	14	US-10-029-065-13	Sequence 13, Appl
31	151.4	5.0	2523	15	US-10-369-493-42208	Sequence 42208, A
32	150.8	5.0	2589	12	US-10-282-122A-11088	Sequence 11088, A
33	146.6	4.8	2463	12	US-10-282-122A-18909	Sequence 18909, A
34	144.8	4.8	2613	9	US-09-815-242-4219	Sequence 4219, Ap
35	144.8	4.8	2619	9	US-09-815-242-8235	Sequence 8235, Ap
36	141.8	4.7	2556	12	US-10-282-122A-38621	Sequence 38621, A
37	140.2	4.6	2526	15	US-10-369-493-33427	Sequence 33427, A
38	137.6	4.5	2562	12	US-10-282-122A-32798	Sequence 32798, A
39	136.8	4.5	2325	12	US-10-282-122A-8190	Sequence 8190, Ap
40	136.8	4.5	3159	8	US-08-781-986A-231	Sequence 231, App
41	136.8	4.5	3159	12	US-10-329-624-231	Sequence 231, App
42	136.8	4.5	3521	14	US-10-270-839-50	Sequence 50, Appl
43	135.8	4.5	2535	9	US-09-815-242-9417	Sequence 9417, Ap
44	135.8	4.5	2574	12	US-10-282-122A-38017	Sequence 38017, A
45	135.8	4.5	3754	9	US-09-452-599-31	Sequence 31, Appl

ALIGNMENTS

RESULT 1

US-10-029-065-1
; Sequence 1, Application US/10029065
; Publication No. US20030150024A1
; GENERAL INFORMATION:
; APPLICANT: May, Gregory
; APPLICANT: Baszczyński, Christopher
; APPLICANT: Zhu, Tong
; APPLICANT: Kipp, Peter
; APPLICANT: Mahajan, Pramod
; TITLE OF INVENTION: PLANT MSH2 SEQUENCES AND METHODS OF USE
; FILE REFERENCE: 5839-2 (035839/196219)
; CURRENT APPLICATION NUMBER: US/10/029,065
; CURRENT FILING DATE: 2001-12-20
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: Patent version 3.0
; SEQ ID NO 1
; LENGTH: 3033
; TYPE: DNA
; ORGANISM: Nicotiana tabacum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (22)..(2838)
US-10-029-065-1

Query Match 100.0%; Score 3033; DB 14; Length 3033;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 3033; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATAAAGGTTAAAGAAAAAATGAATGAAAAATTTGGAGGAAACAGAGCAAGCTTCCCGAG 60

Db 1 ATAAAGGTTAAAGAAAAAATGAATGAAAAATTTGGAGGAAACAGAGCAAGCTTCCCGAG 60

QY 61 CTTAAACTGGATGCTAAGCAAGCTCAAGATTCTCTCTCAATTTCTTCAAAACCTGCCCAAG 120

Db 61 CTTAAACTGGATGCTAAGCAAGCTCAAGATTCTCTCTCAATTTCTTCAAAACCTGCCCAAG 120

QY 121 GACCCCTAGGGCAGTTCCGCTCTTTTGATCGTCGGGACTATTATACATCTCTCATGGAGATGAT 180

Db	121	GACCCCTAGGCGAGTTCGCGCTCTTTGATCGTCGGGACTATTATACATCTCATGCGAGTAT	180
Qy	181	GCAACTTTTCATTGCAGAGACATATTACCACACAAACAACCTGCGTTACGACAGTTGGGTAA	240
Db	181	GCAACTTTTCATTGCAGAGACATATTACCACACAAACAACCTGCGTTACGACAGTTGGGTAA	240
Qy	241	AGAGCTGATGCCCTTTCCAGTGTGTAGTGAGTAGAACAATGTTTGAACAATATAGCTCGT	300
Db	241	AGAGCTGATGCCCTTTCCAGTGTGTAGTGAGTAGAACAATGTTTGAACAATATAGCTCGT	300
Qy	301	GACATTCCTTTGAGAGAAATGGACCTTACTCTTTGAACTATATGAGGGCAGTGGTTCAAAC	360
Db	301	GACATTCCTTTGAGAGAAATGGACCTTACTCTTTGAACTATATGAGGGCAGTGGTTCAAAC	360
Qy	361	TGAGACTGGTAAAAAGTGGAAACCCAGGGAATCTTTGGAAGTTTGGAGATATCTGTGTTT	420
Db	361	TGAGACTGGTAAAAAGTGGAAACCCAGGGAATCTTTGGAAGTTTGGAGATATCTGTGTTT	420
Qy	421	GCTAATAATGAAATGCAAAATCTCCGGTGATGTGCTCTTGCTCCAAACCTTCGGTCAG	480
Db	421	GCTAATAATGAAATGCAAAATCTCCGGTGATGTGCTCTTGCTCCAAACCTTCGGTCAG	480
Qy	481	AATGGATGTGAAGTTGGCTTTAGGCTATGTTGATATTAATAAGAGAGTCCCTGGTTTAAACA	540
Db	481	AATGGATGTGAAGTTGGCTTTAGGCTATGTTGATATTAATAAGAGAGTCCCTGGTTTAAACA	540
Qy	541	GAATTTCTAGATGATAGCACATTCACAAATTTGGAGTCTGCTTTGGTGGCTCTTGCGTTGC	600
Db	541	GAATTTCTAGATGATAGCACATTCACAAATTTGGAGTCTGCTTTGGTGGCTCTTGCGTTGC	600
Qy	601	AGAGAATGTCCTGTACAGCGGAGACTGGCAAAATCCAGTGAATACAGGCGCTATGTTTGAT	660
Db	601	AGAGAATGTCCTGTACAGCGGAGACTGGCAAAATCCAGTGAATACAGGCGCTATGTTTGAT	660
Qy	661	GCAATATCTAGATGCGGCGGTGATGSTMCTGAAAGAAAGAAAACCTGAATTAAGGGAGA	720
Db	661	GCAATATCTAGATGCGGCGGTGATGSTMCTGAAAGAAAGAAAACCTGAATTAAGGGAGA	720
Qy	721	GATTTGGTACAGGATCTTTGTAGGCTCGTCAAGGGTTTCAGTAGAACCTGTTCCAGATTTC	780
Db	721	GATTTGGTACAGGATCTTTGTAGGCTCGTCAAGGGTTTCAGTAGAACCTGTTCCAGATTTC	780
Qy	781	GTCTCTGGGTTCGAATGTGCATCAGGCGCTTTGGGGTGCATACTTTCTTATGCGAACTA	840
Db	781	GTCTCTGGGTTCGAATGTGCATCAGGCGCTTTGGGGTGCATACTTTCTTATGCGAACTA	840
Qy	841	CTTGCGGATCAGAGCAACTATGGAACCTATACAGTCAAAACAATACACCTCAATAGTTAC	900
Db	841	CTTGCGGATCAGAGCAACTATGGAACCTATACAGTCAAAACAATACACCTCAATAGTTAC	900
Qy	901	ATGAGATTAGATTCCTGCTGCTATGAGAGCACTGAATCTTATGAGAGCAAAATCAGATGCT	960
Db	901	ATGAGATTAGATTCCTGCTGCTATGAGAGCACTGAATCTTATGAGAGCAAAATCAGATGCT	960
Qy	961	AATFAAAAATTTTACCTTTGTCGTTCTGATGAATAGAACGTTGACTGCTGAATGGGTAAA	1020
Db	961	AATFAAAAATTTTACCTTTGTCGTTCTGATGAATAGAACGTTGACTGCTGAATGGGTAAA	1020
Qy	1021	AGGTTATTGACATGTGGCTGAAGCAACCTTTACTAGATGTAGAAGAGATTAATCTGTAGG	1080
Db	1021	AGGTTATTGACATGTGGCTGAAGCAACCTTTACTAGATGTAGAAGAGATTAATCTGTAGG	1080
Qy	1081	CTGATTTTAGTTCATATTCCTGCTGGAGAGTCTCGGCTTCGCCAAGATTTTGGGAGCAT	1140
Db	1081	CTGATTTTAGTTCATATTCCTGCTGGAGAGTCTCGGCTTCGCCAAGATTTTGGGAGCAT	1140
Qy	1141	CTGAAGAATTTTCCAGATATTTGAGCGCTGACACACAATCTTGAGAGGAAAAGGCCAGT	1200
Db	1141	CTGAAGAATTTTCCAGATATTTGAGCGCTGACACACAATCTTGAGAGGAAAAGGCCAGT	1200
Qy	1201	TTAGTGCACGTTGTAAAACTCTATCAGTCAAGTACCAGGTACCATATATCAAAAAGTTT	1260

1201	TTAGTGCACGTTGTGTAATACTCTATCAAGTCAAGTACAGAGTACCATATATCAAAAGTGTT	1261
QY	TTGGAAACGTCAATGATGGGCAATTTTGCAACACTCATCAGGGAAGGTATATGTGATTTCTCTA	1320
Db	TTGGAAACGTCAATGATGGGCAATTTTGCAACACTCATCAGGGAAGGTATATGTGATTTCTCTA	1320
QY	GAGAAATGGAGTGTATGATTAATCACCTGTGAATAGTTTCATAGTCTCTGTGGAAACTTCTGTT	1380
Db	GAGAAATGGAGTGTATGATTAATCACCTGTGAATAGTTTCATAGTCTCTGTGGAAACTTCTGTT	1380
QY	GACCTTGATCAACTTGAGAAATGGAGAATACATGATTTCTTCTGCAATATGACCCAAATTTA	1440
Db	GACCTTGATCAACTTGAGAAATGGAGAATACATGATTTCTTCTGCAATATGACCCAAATTTA	1440
QY	TCGTCTCTGAAGGATCAGCAAGAGACATTTGGAGCGCAAAATTCATAAATTTGCAACAACAA	1500
Db	TCGTCTCTGAAGGATCAGCAAGAGACATTTGGAGCGCAAAATTCATAAATTTGCAACAACAA	1500
QY	ACTGCCAAATGATCTTGATCTTACCTATTGATTAAGTCACTTAAATAGATATAAGAAAAACAA	1560
Db	ACTGCCAAATGATCTTGATCTTACCTATTGATTAAGTCACTTAAATAGATATAAGAAAAACAA	1560
QY	TTTGGACAGCTCTTCAGAAATTACCAAGAAAGAAAGAACCAAAAGTCAGGAAGCAGCTAAAT	1620
Db	TTTGGACAGCTCTTCAGAAATTACCAAGAAAGAAAGAACCAAAAGTCAGGAAGCAGCTAAAT	1620
QY	TCCTCACTACATTTCTCTCGAAACACGCTTAAGGATGGGTAAAGTTTCACCTATACAAAACTC	1680
Db	TCCTCACTACATTTCTCTCGAAACACGCTTAAGGATGGGTAAAGTTTCACCTATACAAAACTC	1680
QY	AAAAAACTAGGAGATCAGTTTCCAGAAAGATTGTAGAGAGGTACAAAAGCTGTGAGAAAGAA	1740
Db	AAAAAACTAGGAGATCAGTTTCCAGAAAGATTGTAGAGAGGTACAAAAGCTGTGAGAAAGAA	1740
QY	TTGGTAGCTCGTGTAGTCTCAACACAGCTGGAGTTTCTCCGAGCTGTTTGCAGAGTATAGCT	1800
Db	TTGGTAGCTCGTGTAGTCTCAACACAGCTGGAGTTTCTCCGAGCTGTTTGCAGAGTATAGCT	1800
QY	GGTGTACTTGTCTGAGTTGGATGTGTTACTGAGTTTGGCGGATTTGGCTGCCAGTTGCCCA	1860
Db	GGTGTACTTGTCTGAGTTGGATGTGTTACTGAGTTTGGCGGATTTGGCTGCCAGTTGCCCA	1860
QY	ACTCCCTACCAAGACCAATATCAGTCCACAGATACAGGAGATATATATCTTGAAGGG	1920
Db	ACTCCCTACCAAGACCAATATCAGTCCACAGATACAGGAGATATATATCTTGAAGGG	1920
QY	TGTAGGCATCCTTGTGTGGAAGCTCAAGATTGGGTTAACTPCCATTCCTAATGACTGTAGA	1980
Db	TGTAGGCATCCTTGTGTGGAAGCTCAAGATTGGGTTAACTCCTAATGACTGTAGA	1980
QY	CTAGTTAGGGGAGAGAGTTGGTTTCAGATTATACAGGCCCTTAACATGGGTGGAAAGTCG	2040
Db	CTAGTTAGGGGAGAGAGTTGGTTTCAGATTATACAGGCCCTTAACATGGGTGGAAAGTCG	2040
QY	ACCTACATTCGGCAGAGTTGCTGTGGAATGCTCATGTGCCCAAGTTGCTCGTTTGTTCCTCA	2100
Db	ACCTACATTCGGCAGAGTTGCTGTGGAATGCTCATGTGCCCAAGTTGCTCGTTTGTTCCTCA	2100
QY	TGTGACAAATGCTACCAATTTCTATTTCGTGATTGTATTTTTTCTCGTGTGCGTGGAGAT	2160
Db	TGTGACAAATGCTACCAATTTCTATTTCGTGATTGTATTTTTTCTCGTGTGCGTGGAGAT	2160
QY	TGCCAGCTGAGAGGAGTTTCTATTTTATGCCAAGAGATGCTTGAGAGCTGCATCGATCTTG	2220
Db	TGCCAGCTGAGAGGAGTTTCTATTTTATGCCAAGAGATGCTTGAGAGCTGCATCGATCTTG	2220
QY	AAAGGAGCTACTCATATAGATCATTTGATTAATTTGATGAGTTGGGCCCTGGGACATCAACC	2280
Db	AAAGGAGCTACTCATATAGATCATTTGATTAATTTGATGAGTTGGGCCCTGGGACATCAACC	2280
QY	TACGATGGCTTTGGTTTGTAGCTTGGGCTATTGTGAGCAATTTGTGAAGAAATTAAGACA	2340
Db	TACGATGGCTTTGGTTTGTAGCTTGGGCTATTGTGAGCAATTTGTGAAGAAATTAAGACA	2340

1030 CACATGCGCTGAAGCAACCTTTTACTAGATGTAAGAGATTAAGTCTAGCTGGATTTA 1089
Db
1030 CACATGCGCTGAAGCAACCTTTTACTAGATGTAAGAGATTAAGTCTAGCTGGATTTA 1089
Qy
1090 GTTCAATCATTCGTGGAGATGCTGCGCTTCGCAAGATTTGAGCGCAGCATCTCAAAAGA 1149
Db
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Qy
1150 ATTTGAGATATGAGCGCTGACACACAAATCTTGAGAGGAAAGAGCGAGTTTATGTGAC 1209
Db
1150 ATTTGAGATATGAGCGCTGACACACAAATCTTGAGAGGAAAGAGCGAGTTTATGTGAC 1209
Qy
1210 GTTGTAAATCTATCAGTCAAGTACAGAGTACCATATATCAAAAGTGTGTTGGAAGT 1269
Db
1210 GTTGTAAATCTATCAGTCAAGTACAGAGTACCATATATCAAAAGTGTGTTGGAAGT 1269
Qy
1270 CATGATGGCAATTTGCAACACTCATCAGGGAAGGTATATGATTTCTTAGAGAAATGG 1329
Db
1270 CATGATGGCAATTTGCAACACTCATCAGGGAAGGTATATGATTTCTTAGAGAAATGG 1329
Qy
1330 AGTGAATATACCTGAATTAAGTTTATAGTCTGTGGAACCTTCTGTGATCTGTGAT 1389
Db
1330 AGTGAATATACCTGAATTAAGTTTATAGTCTGTGGAACCTTCTGTGATCTGTGAT 1389
Qy
1390 CAATTTGAGATGAGATATGATGATTTCTTCTGATATGACCCAAATTTATCTGCTCTG 1449
Db
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1450 AAGGATGAGCAAGAGACATTTGAGCGCAAAATTTCAATAATTTGCAAAACAAATGCCAAT 1509
Db
1450 AAGGATGAGCAAGAGACATTTGAGCGCAAAATTTCAATAATTTGCAAAACAAATGCCAAT 1509
Qy
1510 GATCTTGATCTACCTATTAAGTCACTTAACTAGATAAGAAACAAATTTGGAAC 1569
Db
1510 GATCTTGATCTACCTATTAAGTCACTTAACTAGATAAGAAACAAATTTGGAAC 1569
Qy
1570 GTCTTCAGAAATCCAGAAAGAGAACCAAAAGTCAGGAAGCAGCTAAATTTCTCACTAC 1629
Db
1570 GTCTTCAGAAATCCAGAAAGAGAACCAAAAGTCAGGAAGCAGCTAAATTTCTCACTAC 1629
Qy
1630 ATTTGTTCTCGAAACACGTAAGGATGGGTAAAGTTTCACTATACAAAACTCAAAAACTA 1689
Db
1630 ATTTGTTCTCGAAACACGTAAGGATGGGTAAAGTTTCACTATACAAAACTCAAAAACTA 1689
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Db
1690 GGAGATCAGTTCCAGAAAGATTTAGAGAGATACAAAGCTGTGAGAAAGATTTGTAGCT 1749
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1750 CGTGTAGTTCAAAACAGCTGCGAGTTTCTCCGAGGTGTTTGCAGGTATAGCTGGTACTT 1809
Db
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Qy
1810 GCTGAGTTGGATGCTTACTGATTTTGGATTTGGCTGGCTGGCTGGCTGGCTGGCTGGCT 1869
Db
1810 GCTGAGTTGGATGCTTACTGATTTTGGATTTGGCTGGCTGGCTGGCTGGCTGGCTGGCT 1869
Qy
1870 ACAAGACCAATATACGTCACAGATACAGAGATATATATCTTGAAGGTGTAGGCAT 1929
Db
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Qy
1930 CTTGTTGGAGGCTCAAGATTTGGTAACTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT 1989
Db
1930 CTTGTTGGAGGCTCAAGATTTGGTAACTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT 1989
Qy
1990 GGAGAGATTTGGTTTTCAGATTAACAGCCCTTAACTGGGTGGAAAGTTCGACCTACAT 2049
Db
1990 GGAGAGATTTGGTTTTCAGATTAACAGCCCTTAACTGGGTGGAAAGTTCGACCTACAT 2049
Qy
2050 CGGAGGTTGGTGTGAATGCTGATGGCCCAAGTTGGCTGCTGTTGTTCCATGTGACAAAT 2109
Db
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2110 GCTACCAATTTCTATTCGTGATTTGTTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2169
Db
2110 GCTACCAATTTCTATTCGTGATTTGTTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2169
Qy
2170 AGAGGAGTTTCTACTTTTATGCAAGAGATCTTTGAGACTGCATCGATCTTTGAAAGAGCT 2229
Db
2170 AGAGGAGTTTCTACTTTTATGCAAGAGATCTTTGAGACTGCATCGATCTTTGAAAGAGCT 2229
Qy
2230 ACTGATAGATCATTTGATTAATTTGATGAGTTGGGCGGTGGGACATCAACTAGATGGC 2289
Db
2230 ACTGATAGATCATTTGATTAATTTGATGAGTTGGGCGGTGGGACATCAACTAGATGGC 2289
Qy
2290 TTTGGTTTGTGGGCTATTTGTGAGCACAATTTGTGAAGAAATTAAGACACCAACATTTG 2349
Db
2290 TTTGGTTTGTGGGCTATTTGTGAGCACAATTTGTGAAGAAATTAAGACACCAACATTTG 2349
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2350 TTTGCCACTCATTTTCAATGAGCTGACTGCAATTAAGCAACCAAGATGGAGCAATTTG 2409
Db
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2410 AAGAAAATGCTGGATAGCAAAATTTTTCATGTTTTCGACACATTTGACCTTCTTAATCGC 2469
Db
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2470 AAGCTAACTATGCTTTTCAAGGTTTCCACAGGTTTTCATGTTTTCGACACATTTGATTCAT 2529
Db
2470 AAGCTAACTATGCTTTTCAAGGTTTCCACAGGTTTTCATGTTTTCGACACATTTGATTCAT 2529
Qy
2530 GTTGTCTGAAATTTGCAAAATTTTCCACAGGTTTTCATGTTTTCGACACATTTGATTCAT 2589
Db
2530 GTTGTCTGAAATTTGCAAAATTTTCCACAGGTTTTCATGTTTTCGACACATTTGATTCAT 2589
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2590 GAGTTGAGGATTTTCTCTCTATTTGCCATTAATTTCCAAATGACATTTAAAGAGGAGCTTCA 2649
Db
2590 GAGTTGAGGATTTTCTCTCTATTTGCCATTAATTTCCAAATGACATTTAAAGAGGAGCTTCA 2649
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2650 AAACGGAAGAGAGAAATTTGACCGCATGCTGTTAGAGGTACTGCGCAGAGCTCGGCAA 2709
Db
2650 AAACGGAAGAGAGAAATTTGACCGCATGCTGTTAGAGGTACTGCGCAGAGCTCGGCAA 2709
Qy
2710 TTCTTAAGGATTTGCTGCTAGTTGCCACTGATTAAGATGGAATCCAAACGTTGGTCAAGCAA 2769
Db
2710 TTCTTAAGGATTTGCTGCTAGTTGCCACTGATTAAGATGGAATCCAAACGTTGGTCAAGCAA 2769
Qy
2770 AAGTTGAGCAAAATGAAACCGACCTGGAGGAGATGAGTTGACTCTCACTGCTTCAG 2829
Db
2770 AAGTTGAGCAAAATGAAACCGACCTGGAGGAGATGAGTTGACTCTCACTGCTTCAG 2829
Qy
2830 CAATTTCTTTTAAATTTTCAATTTAGAACTATCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 2889
Db
2830 CAATTTCTTTTAAATTTTCAATTTAGAACTATCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 2889
Qy
2890 GATACCTATGAGTTTGTGGATATACTTAGCCCTATCTGTAACCTTTCAATTTAAATCTT 2949
Db
2890 GATACCTATGAGTTTGTGGATATACTTAGCCCTATCTGTAACCTTTCAATTTAAATCTT 2949
Qy
2950 ACCCCAAACATGATTTCTGTAATCAGGGGACTTTTGTATGCTATTTCTGTTTAAATAGTAA 3009
Db
2950 ACCCCAAACATGATTTCTGTAATCAGGGGACTTTTGTATGCTATTTCTGTTTAAATAGTAA 3009
Qy
3010 GCGTTATCTTATATGTTCAAAAAA 3033
Db
3010 GCGTTATCTTATATGTTCAAAAAA 3033

RESULT 3

US-10-425-114-31788
; Sequence 31788, Application US/10425114
; Publication No. US20040034888A1
; GENERAL INFORMATION:
; APPLICANT: Liu, Jingdong
; APPLICANT: Zhou, Yihua
; APPLICANT: Kovalic, David K.

APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
FILE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 31798
LENGTH: 2841
TYPE: DNA
ORGANISM: Zea mays
FEATURE:
OTHER INFORMATION: Clone ID: UC-ZMFLB73219B02_FLI
US-10-425-114-31798

Query Match 40.6%; Score 1231; DB 12; Length 2841;
Best Local Similarity 68.0%; Pred. No. 0;
Matches 1762; Conservative 0; Mismatches 820; Indels 9; Gaps 3;

QY	261	TGTTAGTGTGAGTAAACAATGTTTGAACAATAGCTCTGACATCTCTTGGAGAGAT	320
DB	1	TGCCAGCGTGAGCAAGGCTATTTTGAGACCAATGGCCGCAACATTTTGTGGAAAGGAC	60
QY	321	GGACCGTACTCTTGAACTATATGAGGCGAGTGGTCAAACTGGAGACTGGTAAAGTGG	380
DB	61	TGACTGTGATTTGGAACTCTATGAGGGAAGTGGGTCAAAATGGAGGTTAAACAAGTCGG	120
QY	381	AACCCAGGGAATCTTGAAGTATTTGAGGATATCTTGTGTCTAATAATGAATGCAAA	440
DB	121	AACACTGGAATATTTGGTATTTTGAACATCTTGTGTGCAACATGACATGGAAGA	180
QY	441	TTCTCGGTGATGCTGCTCTTCTGCTCCAACTTCGGTCAAGATGGAATGGAATGGGCT	500
DB	181	TTCAACAGTGAATGTGTCTTGTCTTCCAGCGTCCGGGAAAGTCACTGTATGTAGGGCT	240
QY	501	AGGCTATGTTGATATTAACAAGAGTCTCTGGTTTAAACAGATTTCTAGATGATAGCA	560
DB	241	TAGTTTTTGGATATGACCAATAGGAGCTTGGGTGGCTGATTTCCGGAAGATAGCG	300
QY	561	CTTCAAAATTTGGAGTCTGCTTGTGCTCTTGTGCTGAGAGATGCTTGTACACG	620
DB	301	ATTCACTAATGTTGAATCAGCTCTTGTGCAATAGTGTGCAAGGAGTGTCTCTCCAGC	360
QY	621	GGAGACTGCCAATCCAGTGAATAACGGCTATGTTTGAATGCAATATCTAGATGCGGCT	680
DB	361	AGATTGTGAAAAATCCATTGACCTAAACCCCTTCAAGACGCTCATTTAGTAACTGT	420
QY	681	GATGTTAACTGAAGAAAGAAAGAACTGAATTTAAAGGAGAGATTTGGTACAGATCTGG	740
DB	421	TCGTTGATCTGAGAAAGAAAGGCTGACTTCAATCCAGGGATCTCGCAAGATCTTG	480
QY	741	TAGGCTCGTCAAGGGTTCAGTGAACCTGTTGAGATTTGGTCTCTGGGTTGGAATGTC	800
DB	481	TAGAATAATCAGGGTTCGTTGAGGCTGACGTGATCTACTATCTCAGTTTGACTATGC	540
QY	801	ATCAGCGCTTGGGGTGACATCTTCTTAATGCAAGAACTACTTGGGATGAGAGCAACTA	860
DB	541	CTTGTGCCCTTGGAGCTCTTTATCTTATGCGAGTTGCTAGCAGATGACACTAACTA	600
QY	861	TGGAATCTACAGTCAACAATACAACTCAATAGTTACATGATGATTTGCTGCTGC	920
DB	601	TGGAATTTACAAATGAGAAGTACAAATTTGAATCTGCTACGAGCTTGAATCTGCTGC	660
QY	921	TATGAGACACTGAATGTTATGAGAGCAAACTCAGATGCTTAATAAAAATTTTAGCTTGT	980
DB	661	AGTTCCAGCATTAACAATTGCGAAGGGAAGAACTGATGATTAACAAGAACTTCACTTGT	720
QY	981	CGGCTCTGATGAATGAAACGTTGATCTGCTGGAATGGGTAAAGGTTATGCAATGTGGCT	1040
DB	721	TGGTTTGATGAACAGAACTTGTTACTCTTGGATGGGAAAAAGATTGCTGAAACAGATGGCT	780

QY	1041	GAAGCAACCTTTACTAGATGTAGAGAGATTAACCTGTAGGCTGGATTTAGTTCAATCAT	1100
DB	781	GAACAACCTCTATTAGATGTTAATGAATTAATTAACCGACTAGACATGGTTTCAAGCTTT	840
QY	1101	CGTGAGGATGCTGGCTTTCGCCAAGATTTGAGGCGAGATCTGAAAAGAAATTTCAATAT	1160
DB	841	TGTAGAAGACCCAGCACTTGTGAGGACTCGGCAACAACTTAAGAGATATCAGATAT	900
QY	1161	TGAGCGCTGACACACAATCTTTGAGAGGAAAAGCCAGTTTGTGCGCTGTTGTAATCT	1220
DB	901	TGATCTCTAACACATAGTCTCCGAAAGAAATCACTAATCTGCAGCTGTTGTTAAGCT	960
QY	1221	CTATCAGTCAAGTACCAAGTACCATATATCAAAAGTGTGTTTGGACGTCATGATGGCA	1280
DB	961	TTATCAGTCTGTAGCAGAAATCCCATACATCAAGGGCATTTCTCAGCAATATAATGGCCA	1020
QY	1281	ATTTCAACACATCATCAGGGAAGGTATATTGATTTCTCTAGAGAAATGAGTGAATATA	1340
DB	1021	ATTTCAACATTTGATAGGTCAAGTTCCTTGAACGTTAGAGAAATGATGGCAAGAA	1080
QY	1341	TCACCTGAATTAAGTTCATAGGTCTTTGTGAAACTTCTGTGACCTTGATCAACTTGAGAA	1400
DB	1081	TCGATTTGGTCTGGTTTCTTCTCTTGTGAGACAGCTATTTGATCTTGTCTGAGTGGAGAA	1140
QY	1401	TGGCAATACATGATTTCTTCTGCATATGACCCAAATTTATCTGCTCTCTGAAGATGAGCA	1460
DB	1141	TGGAGATGACAGAAATCTCTCTCTATATTTCTTCTGACTTGGGTGTTAAAGGATGAGCT	1200
QY	1461	AGAGACATTTGAGGCGACAAATTCATAATTTGACAAAACAACTGCCAATGATCTTGATCT	1520
DB	1201	TTCTGTGTTGAAACACCATATAACAACTCTGACGTGGATACAGCTAGTGTGATCT	1260
QY	1521	ACCTATTGATAGTCACTTAAACTAGATAAGAAACAAATTTTGGACAGCTCTTCAAGAT	1580
DB	1261	TTCTGTTGATAGCACTGAAGCTAGAAAAGGATCCC---TTGGACATGTTGTTCAAGAT	1317
QY	1581	TACCAAGAAAGAAACCAAAAGTCCAGAGCAGCTAAATCTCTCACTACTTGTCTCGA	1640
DB	1317	GTCAAAGAAAGAGGAAACAGAAAGTCCAGAAAGAACTCTGACGCTACTTAAATCATAGA	1377
QY	1641	AACAGCTAAGGATGGGTAAAGTTCACTATACAAAACCTCAAAAACTAGGAGATCAGTT	1700
DB	1377	AACTGTAAGATGTTAGTTCACAATTTCTAAGCTGAATAATCTAAGTGAATCAATA	1437
QY	1701	CCAGAAAGTTGTAGAGAGTACAAAGCTGTGAGAAAGAAATTTGGTGTGCTGTGATTC	1760
DB	1437	CCAGGCTATTTGTTGTTGAGTACACAAAGTTGTGAGAAAAGGTTGTTGTTGATGTAG	1497
QY	1761	AACAGCTGCGAGTTTCTCCGAGTCTTTGAGGATAGCTGCTGCTGCTGCTGCTGCTG	1820
DB	1497	GGTTTCAGGCACTTCTCAGAGGTAATTTGAAATTTTCTGCTGCTGCTGCTGCTGCTG	1557
QY	1821	TGTGTTACTGAGTTTTCGGGATTTGCGCTGCCAGTTTGCCTCACTCCCTACACAAAGAC	1880
DB	1557	TGTTTTTCAAAAGTTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG	1617
QY	1881	TATCAGTCCACAGATACAGAGATATTAATCTGAAAGGTTGAGCATCTTGTGTGGA	1940
DB	1617	CATCACTGCTCGATGAAGGAGATTTGTTCTACTGGGTAGCAGATCTCTGCTGCTG	1677
QY	1941	AGCTCAAGATTTGGGTTAACTCCATTTCTTAAGCTGTAGCTAGTTAGGGAGAGGTTG	2000
DB	1677	GGCAAGATGTTGTTAACTTTTATCCCAATGTTGCACTCTGGTGGAGGGGAAAGTTG	1737
QY	2001	GTTCAGATTTATCAGGCGCTTAAATGCGGTGGAAGTCGACCTACATTTCCGACAGTTGG	2060
DB	1737	GTTCAGATTTATCAGTGGACCAACATGAGGAGAAATCCCAATTTAAGACAGGTTGG	1797
QY	2061	TGTGAATGCTGTGAGGCGGCAAGTTGGCTCGTTGTTTCTCAATGTGCAATGTCAATTTTC	2120
DB	1797	TGTAATGTTATGAGGCAAGTTGGTTTCTTGTGTTGTTGTTGTTGTTGTTGTTGTTG	1857
QY	2121	TATTCGTGATTTGTTTGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	2180

1858 TGTGAGGATGTATTTCTCGTGTGGCGTGTGATTCGCAACTTCATCGTGTATC 1917
 2181 TACTTTTATCAAGAGATGCTTGAGATCGATCGATCTTCAAGAGAGCTACTCATGATGATC 2240
 1918 AACTTTTATGCAAGAAATGCTTGAAACAGCATCAATCTTAAAGGCGCTCTGATAGTIC 1977
 2241 ATTGATTTATTAATGATGAGTTGGCGCTGGGACATCAACCTGATGGCTTTGGTTAGC 2300
 1978 TCTTATAAATTTATGATGAGCTGGGCGTGAATCTTCCATATGATGATTTGGTCTTGC 2037
 2301 TTGGGCTATTTGCGACATGCTTGAGAAATTAAGACACCAACTGTTTCCCACTCA 2360
 2038 ATGGGCTATCTGTGAGCATCTTATGGAAGTGCCTGAGCGCCCTACCTTTGTTGCAACCCA 2097
 2361 CTTTCATGAGCTGACTGCATTAGC--CAACAAGATGGAGACAAATGGAACATAAGAAAA 2417
 2098 TTTCCATGAACCTAATGCAATTAGCACATAGAAATGATGATGAGCACCACACATTTCCAGA 2157
 2418 TGCTGGGATAGCAAAATTTTCATGTTTTTGGACACATTTGACCTTCTAATCGCAAGCTAAC 2477
 2158 CATCGGAGTTGCAAAATTTATCACGTGGGTGCTCACATAGACCCCATTAAGTAGGAAGTTAAC 2217
 2478 TATGCTTTTAAAGGTTTCAACCGAGTGTCTGTGATCAGAGTTTTGGTATTCAATGTTGCTGA 2537
 2218 TATGCTTTTAAAGGTTTCAACCGAGTGTCTGTGATCAGAGTTTTGGTATTCAATGTTGCTGA 2277
 2538 ATTGCAAAATTTTCCACCGAGTGTGTGGCTGTGGCTAGAGAAAGGCATCTGAGTTGGA 2597
 2278 ATTGCTAAATTTTCCAGAGCTGTGTGTGGCTTGGCCCTTGGCAAGCAAGCAGAGTTTGA 2337
 2598 GGATTTCTCTCTTATTCGCAATTAATCAATGATCAATTTAAA---GAGCGAGCTTCAAAACG 2654
 2338 AGACTTTTCTACTACCTACCTTTCCGATGATTTGAAAGACGAGTTGGATCAAGCG 2397
 2655 GAAGAGAGAAATTTGACCGCATGACGTGTCTAGAGGTACTGCGAGAGCTCGGCAATTTCT 2714
 2398 CAAGAGGATTTATAGCCAGATGATCATCACAGAGGAGCTGCGCGGCTGGCTTTTCT 2457
 2715 ACAGGATTTGCTCAGTTGCACTGGATTAAGATGGATCCAAACGTGGTCAGGCAAAAGTT 2774
 2458 TGAGGAATTCGCGCAATTCCTATGGATGATGATGGATGGGCAAGATCTTTGGAGATGGC 2517
 2775 GAGCAAAATGAACCGACCTGGAGAGGATGAGTTGACTCTCAGTCTGCTTACGCAATTT 2834
 2518 CACCAAGATGAAGCTGACTTGCAGAAAGATGCGAGCTGACAACTTTGGCTCCAGCAGTT 2577
 2835 CTTTATAATTTCT 2845
 2578 CTTCTGAGCT 2588

RESULT 4
 US-10-424-599-71262
 ; Sequence 71262, Application US/10424599
 ; Publication No. US20040031072A1
 ; GENERAL INFORMATION:
 ; APPLICANT: La Rosa Thomas J
 ; APPLICANT: Kovalic David K
 ; APPLICANT: Zhou Yihua
 ; APPLICANT: Cao Yongwei
 ; TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
 ; TITLE OF INVENTION: Plants and Uses thereof for Plant Improvement
 ; FILE REFERENCE: 38-21(53223)B
 ; CURRENT APPLICATION NUMBER: US/10/424,599
 ; CURRENT FILING DATE: 2003-04-28
 ; NUMBER OF SEQ ID NOS: 285684
 ; SEQ ID NO 71262
 ; LENGTH: 2151
 ; TYPE: DNA
 ; ORGANISM: Glycine max
 ; FEATURE:
 ; OTHER INFORMATION: Clone ID: PAT_MRT3847_35361C.1

US-10-424-599-71262
 Query Match 35.1%; Score 1063.2; DB 12; Length 2151;
 Best Local Similarity 75.6%; Pred. No. 2e-287;
 Matches 1346; Conservative 0; Mismatches 428; Indels 6; Gaps 2;
 1069 ATTAACTGTAGCTGTGATTTAGTTCATCATCTGCTGAGAGTCTGGCTTCCCAAGAT 1128
 Db 1 ATTAAATCCAGGTTGGACATAGTTCAAGCATTTGTAGAGGACACTGCTCTTCGCCAAGAT 60
 1129 TTGAGCGAGCATCTGAAAAAATTTTCAGATATTGAGCGGCTGACACACAAATCTTTGAGAG 1188
 Db 61 CTGAGCGAGCATCTGAAAAAATTTTCAGATATTGAGCGGCTGACACAAATTTTCAGAAG 120
 1189 AAAGAGCCAGTTTGTGACGCTGTGAAATCTCTATCAGTCAAGTACCAGAGTACCATAT 1248
 Db 121 CGACGAGCTGTGCAACATATTTTAACTTTATCAGTCAAGTATTAGACTACCTTAC 180
 1249 ATCAAAAGTCTTTTGAACGTCATGATGGCAATTTTGCACACTCATCAGGGAAGATAT 1308
 Db 181 ATCAAAAGTCTTTTGAAGAGATATGATGACAAATTTTCCAAATGATGAGGAGTAGTAT 240
 1309 ATTGATTTCTAGAGAAATGGAGTGTATGATTAATCACTGAAATAGTTTCATAGTCTTTG 1368
 Db 241 CTGGAACCTATTGAGTTATGGACTGATGATGACACCTGACAAATTCATTGGGCTTGA 300
 1369 GAAACTTCTGTGACCTTGATCACTGATGAGATGGAGATACATGATTTCTTCTGATAT 1428
 Db 301 GAAGCTTCTGTGACCTTGATCACTGATGATGATGAGGAAATGACATGATTTCTCCAAGCTAT 360
 1429 GACCCAAATTTATCTGCTCTGAAGGATGAGCAAGAGACATTTGAGGCGACAAATTCATAAT 1488
 Db 361 GATCTCTACTAGCTAACTTAAAGGACCAACAAAGATTTCTAGAGGCGCAATACAAAC 420
 1489 TTGCACAAACAAACTGCCAATGATCTTGATCTACCTATTGATAAGTCACTTAAACTAGAT 1548
 Db 421 TTGCATAGACAACTGCTGATGATCTGCTATGCAAGGCAATTTAAAGTTAGAC 480
 1549 AAAGAAACAAATTTGGACACGCTTCTCAGATTTCCAGATTTCCAGAAAGAAACCAAAAGTCAGG 1608
 Db 481 AAGGCGACACAAATTTGGACATGTTTTCAGAAATCACAAAGAAAGGAGCCAAAATAAGG 540
 1609 AAGCAGCTAAATTTCTCACTACATTTGTTCTGAAACACGTAAGGATGGGTAAAGTTTCACC 1668
 Db 541 AAGAGCTCAATTTACTCAGTTTATTTACTGAAACCCGTAAGATGGAGTGAATTTTACC 600
 1669 TATACAAACTCAAAAACTTAGGAGATCAGTTTCCAGAAAGATTTGAGAGGAGTACAAAGC 1728
 Db 601 AACACGAAGCTCAAGAAACCTAGGGGACCAATATCAACAAATTTCTTGAGGAGTATAAAAGT 660
 1729 TGTGAGAAAGATTTGTTAGCTCTGTGATTTTCAACAGCTGCGAGTTTCTCCGAGGTGTTT 1788
 Db 661 TGTCAAAAAAAGTTAGTTGATAGAGTAGTTTCAAACTGCGGCAACTTTCTCGAGGTGTTT 720
 1789 GCAGGTATAGCTGGTGTACTTGTGAGTTGGATGTGTTACTGAGTTTTCGGGATTTGGCT 1848
 Db 721 GAATCTTTAGCTGAATTAATTTCTGAATTTGATTTACTGAGCTTTGCTGATTTGGCT 780
 1849 GCAGTTGGCCAACTCCCTACACAAAGCAAAATATCAGTCCACAGATACAGAGATATT 1908
 Db 781 TCTAGTTGTCTACTCTCTACACAAAGCCCTGACATCACTTCATCGGACGAAGAGATATT 840
 1909 ATACTTGAAGGTTAGGATCTCTGTTGAGGCTCAAGATTTGGGTAACTTCATTCCT 1968
 Db 841 ACTTTGAAGGATGACAGACCCCTTTGTGAGAGGCAAGACTGGGTGAATTTTATACCA 900
 1969 AATGACTGTAGACTAGTTAGGGGAGAGATTTGGTTTTCAGATTTATCAGGCCCTTAACATG 2028
 Db 901 AATGATTTGAAGCTTTGTGAGAGAAAACTTGGTTTCAATATATACAGGACCTTACATG 960
 2029 GGTGGAAAGTCGACCTACATTTCCGAGGTTGGTGTGAATGCTGATGGCCCAAGTTGGC 2088
 Db 961 GGTGGAAATCAACATTTATCCGAGGTTGGTGTGAATTTATTTTGTGATGGCACAAGTTGGT 1020


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QY 2099 CATGTGCAATGCTACCAATTTCTATTCTGTGATGTATTTTCTGCTGTTTGGCGCTGGAG 2158
Db 958 CTTGTGATCAAGCAAGTATAGTGTGAGGATTTGATTTTCTGCTGTTTGGCGCTGGTG 1017
QY 2159 ATTGCGAGCTGAGAGGAGTTTCTACTTTTATGCAAGAGATGCTTGAGACTGCATCGATCT 2218
Db 1018 ATTGCGAACTTCAAGTGTATCACTTTTATGCAAGAAATGCTTGAACAGATCCATCC 1077
QY 2219 TGAAGGAGCTACTGATAGATCAITGATTAATTAATGATGAGTTGGCGCTGGGACATCAA 2278
Db 1078 TAAAGGCGCTCTGATAAGTCTCTTATAATTAATGATGAGTGGGCGTGGAACTTCCA 1137
QY 2279 CTTAGATGGCTTTGGTTTACCTTGGGCTATTGTGAGCAATTTGTGAAGAAATTAAG 2338
Db 1138 CATATGATGGAATTTGGCTTTCATGGGCTATCTGTGAGCATCTTATGGAAGTGAATCGAG 1197
QY 2339 CACCAACATTTGTTGCCACTCACTTTCAAGAGCTGACTGCAATAGC---CAACAGAAATG 2395
Db 1198 CGCTACCTTGTGCAACCACTTTCCATGAATTAATGATGAGTGAATGATGATG 1257
QY 2396 GAGCAATGAGCATTAAGAAATGCTGGATAGCAAAATTTTCTGTTTTCACACATTTG 2455
Db 1258 ATGAGCAACCAACATTTACAGATCGGAGTTGCAAAATTTATCACGTGGTGTCTCACATAG 1317
QY 2456 ACCCTTCTAATCGCAAGCTAATGCTTTTACAGGTTTACCGAGTGTGCTGTGATGAGA 2515
Db 1318 ACCCATTAAGTAGGAAGTAACTATGCTTTTCAAGGTTGAACCTGGTGCATGCGACCAAA 1377
QY 2516 GTTTGTGATTCATGTTGCTGCAATTTGCAATTTTCCACCGAGTGTGTTGGCTCTGGCTA 2575
Db 1378 GTTTGTGATTCATGTTGCAAGTGTGCTTTTCCAGAGCTGTGTTGGCTTGGCA 1437
QY 2576 GAGAAAGGATCTGAGTTGAGGATTTCTCTCTATTTGCCATAATTTCCAAATGACATTA 2635
Db 1438 AAAGCAAGCAGCAGGTTAGAGACTTTTCTACTACACTTCTTCCGATGATTTGA 1497
QY 2636 AA---GAGCGAGCTTCAAAACGAGAGAGAAATTTGACCGCATGACGTGTAGAGTA 2692
Db 1498 AAGCAGAGTTGGATCAAGCGCAGAGGGTATTTAGCCCGATGACATCACCAGAGAG 1557
QY 2693 CTGCGAGAGCTCGGCAATTTCTACAGGATTTGCTTCAGTTGCGCACTGGATGAAGATGATC 2752
Db 1558 CTGACGCGCTCGCTTTTCTTGGGAATTCGCGCATTTGCTATGATGATGATGATG 1617
QY 2753 CAAGCTGCTCAGGCAAAAGTTGAGCAAAATGAAACCGACCTGAGAGGATGCAAGTTG 2812
Db 1618 GGAGCAAGATATTGGAGATGGCCACCAAGATGAAGCTGACTTGCAGAAAGATGCAAGCTG 1677
QY 2813 ACTCTCACTGCTTCAGCAATTTCTTTAATTTCT 2845
Db 1678 ACAATCTTGGCTCAGCAGTTCTTCTGAAGCT 1710

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RESULT 6

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US-10-425-114-3918
; Sequence 3918, Application US/10425114
; Publication No. US20040034888A1
; GENERAL INFORMATION:
; APPLICANT: Liu, Jingdong
; APPLICANT: Zhou, Yihua
; APPLICANT: Kovalic, David K.
; APPLICANT: Screen, Steven E.
; APPLICANT: Tabaska, Jack E.
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
; FILE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(5313)B
; CURRENT APPLICATION NUMBER: US/10/425,114
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 73128
; SEQ ID NO 3918
; LENGTH: 1723

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; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID: 700344029_FLI
US-10-425-114-3918

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Query Match 23.3%; Score 706.4; DB 12; Length 1723;
Best Local Similarity 66.8%; Pred. No. 3.3e-187;
Matches 1023; Conservative 0; Mismatches 187; Indels 3; Gaps 1;

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QY 529 CTTGCTTTTAAACAGAAATTTCTAGATGATGAGCACATTTCAAAATTTGGAGTCTGCTTTGTT 588
Db 3 CTTGGTTGGTGGTTTCCGAAGATAGCGAATCTAATGTTGAATCAGCTCTTCTTTGTT 62
QY 589 GCTCTTGGTTGCAAGAAATGCTTTGTACCGCGGAGACTGSCAAATCCAGTGAATACAGG 648
Db 63 GCATTAGGTTGCAAGGAGTGTCTTCTCCAGCAGATGTGAAAAATCCATTGACTTAAT 122
QY 649 CCTATGTTTGTATGCAATATCTAGATGCGGCGTGTGTAATCTGTAAGTGTGAAAAAAGAGCTGAC 708
Db 123 CCCCCTTCAAGACGCTCAITAGTAACTGTAATGTTCTGTGACTGAGAAAAAAGAGGCTGAC 182
QY 709 TTTAAAGGAGAGATTTGGTACAGGATCTTGGTAGGCTCGTCAAGGCTTCACTAGTAGAACCT 768
Db 183 TTTCAATCCAGGATCTCGCAAGATCTTGGTAGAATATCAGGGTCTGTTGAGGCT 242
QY 769 GTTCGAGATTTGGTCTCTGGGTTGCAATGTGCAFCAGGCGCTTTGGGGTGCACTTTCT 828
Db 243 GTACGTGATCTACTATCTCAGTTTGAATGCTCTTGTGCTGCTGAGCTCTTTTATCT 302
QY 829 TATGCAAGTACTTTCGGGATGAGAGCAATCTGTAAGTCTGTAAGTCTGTAAGTCTGTAAGTCT 888
Db 303 TATCCAGGTTGCTAGCAGATGACATTAATGTAAGTCTGTAAGTCTGTAAGTCTGTAAGTCT 362
QY 889 CTCAATAGTTACATGAGATTAGATTTCTGCTGCTATGAGAGCACTGAATGTTTATGAGAGC 948
Db 363 TTGAATCTACATGCGACTTGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 422
QY 949 AAATCAGATGCTAATAAAATTTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1008
Db 423 AAAGCTGATTAACAAAGAACTTCAGTTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT 482
QY 1009 GGATGAGTAAAGGTTTATGCAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1068
Db 483 GGGATGAGTAAAGGTTTATGCAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 542
QY 1069 ATTAATCTGTTAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1128
Db 543 ATTAATCTGTTAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 602
QY 1129 TTGAGGAGCATCTGAAAGAAATTTTGTGATATTGAGGCGCTGACACAAATCTTGTGAGAGG 1188
Db 603 CTCGGCAACAACTTAAAGGATATCAGATATTGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 662
QY 1189 AAAAGAGCCAGTTTGTGAGCAGTTTGTAAATCTTATCAGTCAAGTACCCAGAGTACCATAT 1248
Db 663 AATCAGCTAATCTGACGCTGTTTGTGATGCTTATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 722
QY 1249 ATCAAAAGTGTGTTGGAACTGCTGATGGGCAATTTGTCAACACTCATCATCAGGAAAGGTAT 1308
Db 723 ATCAAGGCGATTTCTCAGCAATATATATGCGCAATTTTCAACATTTGTAAGGTCAAAGTTT 782
QY 1309 ATTGATTTCTAGAGAAATGAGTGTATGATTAATCCTGTAATGATGATGATGATGATGATGATG 1368
Db 783 CTTGAACCGTTAGAGAAATGAGTGGCAAGAAATCGAATTTGTTGCTGCTGCTGCTGCTGCTGCTGCT 842
QY 1369 GAAACTTCTGCTGACCTTGTATCACTTTGAGAAATGAGAAATACATGATTTCTTCTGCAATAT 1428
Db 843 GAGACAGCTATTGATCTTGTCTGAGTGGAGATGGAGATGAGATGATATCTCTCTATAT 902
QY 1429 GACCCAAATTTATCTGCTCTGAAGGATGAGCAAGAGACATTTGGAGCGACAAATTCATPAT 1488
Db 903 TCTTCTGACTTGGGTGCTAAGGATGAGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 962

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QY	1489	TTGCAAAA	CAAACTG	CCAAATG	ATCTTGAT	TCTACCT	TATTTGAT	AAGTCAC	TTAACCT	AGAT	1548				
Db	963	CTGCAC	TGCGAT	CAGCTAG	TGATCTG	ATCTTCT	GTGAT	AAGCACT	GGAAGCT	AGAA	1022				
QY	1549	AAAGAA	CAACAA	TTTGG	CACAGCT	CTTCAG	AATTAC	CAAGA	AGAAC	CAAAAGCT	CAGG	1608			
Db	1023	AAAGGAT	CCC---	TTG	GACATG	TGTTCA	GAATGT	CAAA	GAAGA	GAGGAC	AGAAGCT	CAGG	1079		
QY	1609	AAGCAG	CTAAAT	TCTCA	CTACT	TGTTCT	CGAA	CACG	TAAAG	GATGGG	TAAAGTT	CAAC	1668		
Db	1080	AGAAACT	CTCTG	CAGCT	ACTTAA	TCAT	AGAA	AACTCG	TAA	GATGGT	TAAAGTT	CAAC	1139		
QY	1669	TATACAA	AACTCA	AAAACT	AGAGAT	CACTCC	CAGA	AGAA	TTGT	TAGAGG	AGTAC	AAAAAGC	1728		
Db	1140	AAITCT	AAAGCT	GAAAA	ATCTAA	GATG	CAATACC	CAGG	CAATG	TTTGGT	GAGTAC	ACAAGT	1199		
QY	1729	TGTCAG	AAAGAA	TTGGT	AGTCG	TGTAG	TTTCAA	CACG	CTCG	AGTTTCT	CCGAGG	TGTTT	1788		
Db	1200	TGTCA	AAAAAG	GTGGT	TGGTAT	GTAGT	GAGG	TTTT	CAGG	CAATCT	CAGAGG	TATTT	1259		
QY	1789	GCAGG	TATAC	TGTTG	TACTG	TCTG	AGTTCC	GAATG	TGTACT	GTAGTTT	TCGG	GAATTTGGCT	1848		
Db	1260	GAATA	ATTTG	CTG	CAGTCT	GTG	CGAGT	TCGAT	GTTTTT	TACAA	AGTTTGT	CTGATTTGGCA	1319		
QY	1849	GCAGT	TGCCAA	CTCC	CTAC	CAGAC	CAAA	TATC	AGTCC	ACAG	TACAG	GAGATATT	1908		
Db	1320	ACTAG	TTGCC	AGTTCC	TTAT	GTAT	GAGGCC	AGAC	TCACTC	CGT	CGGAT	GAAGAGATATT	1379		
QY	1909	ATACT	TGAAG	GGGTG	TAGGC	ATCCTT	GTGTG	CGA	AGCTCA	AGATT	GGGTAA	CTCCATTCCT	1968		
Db	1380	GTCTAC	TGCGGT	AGCAG	ACATCT	TGTCT	AGAG	GCAC	AAAGT	GGTGT	TACTTTAT	CAACC	1439		
QY	1969	AATGAC	TGTAGA	CTAGT	TAGGG	AGAG	AGTTGG	TTTC	CAGAT	TATCA	CAGGCC	CTTAA	CATG	2028	
Db	1440	AATGAT	TGC	ACTCT	GTG	TAG	GGG	AAAA	TTGGTT	TTCAG	ATCAT	CTG	GACCA	AATG	1499
QY	2029	GGTGG	AAAGT	CGAC	CTAC	ATTCG	CGC	AGTTGG							
Db	1500	GGAGG	AAATCC	CAATTT	ATA	AGAC	AGGTTAG								

RESULT 7
US-10-270-839-48
; Sequence 48, Application US/10270839
; Publication No. US20030143586A1
; GENERAL INFORMATION:
; APPLICANT: Chao, Qimin
; APPLICANT: Grasso, Luigi
; APPLICANT: Sass, Philip M.
; APPLICANT: Nicolaides, Nicholas C.
; TITLE OF INVENTION: Genetic Hypermutability of Plants for Gene Discovery and Diagnosis
; FILE REFERENCE: AG0002US (MOR-0133)
; CURRENT APPLICATION NUMBER: US/10/270,839
; CURRENT FILING DATE: 2002-10-11
; PRIOR APPLICATION NUMBER: 60/328,750
; PRIOR FILING DATE: 2001-10-12
; NUMBER OF SEQ ID NOS: 129
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 48
; LENGTH: 5307
; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
US-10-270-839-48

	Query Match	22.6%	Score 685.8	DB 14	Length 5307
	Best Local Similarity	63.4%	Pred. No. 4.4e-181		
	Matches 1149	Conservative	0	Mismatches 522	Indels 140
					Gaps 1
Qy	126	TAGGGCAGTTGCGCTCTTTCATCGTCGGGACTATTATACATCTCATGGAGATGATGCAAC	185		
Db	1096	TATGGAAATTTTGTGAATGCATTTTCAGGATTATTATACAGCTCATGGTGAATAATTCAGT	1155		

Qy	186	TTTCAATTGCAGAGACATATTACACACAACTGCGGTATACGACAGTTGGGTAAATAGAGC	245
Db	1156	TTTCAATTGCAAAAGACTTATTATCATCAACCACTGCTACGTCAGCTCGGAGTGGTTC	1215
Qy	246	TGATGCCCTTTCCAGTGTAGTGTGAGTGAACAATCTTTTGAACAATAGCTCGTGACAT	305
Db	1216	AAATGCTCTTTTCAAGCGTAGCAATTAGTAGGAACATGTTCCGAAACGATTGCTTAGGATCT	1275
Qy	306	TCTCTTGGAGAGAAATGGACCGTACTCTTGAACTATATGAGGGCAGTGGTTCAAACGGAG	365
Db	1276	TCTCTTGGAGCGTAATGATCATACTCTAGAACTTTATGAAGGAAGCGGATCGAATTGGAG	1335
Qy	366	ACTGGTAAAAGTGGAAACCCAGGGAATCTTGAAGTTTGGAGGATATCTCTGTTGCTAA	425
Db	1336	ACTTGTGAANAACAGGTTCTCTCGAAACATGGAAGCTTTGAAGATGTTTGTGTGCAAA	1395
Qy	426	TAATGAATGCAAAATTTCTCCGTGATTGCTGCTCTTGCTCCAAACTTCGGTCAGAATGG	485
Db	1396	CAATGAATGCGAGACACACAGTGTGTCTCATATTTCCAAAGTTTTCACGATGGCAG	1455
Qy	486	ATGTGAAGTTGGCTTAGGCTATGTTGATATTTACTAAGAGAGTCCITGGTTTAAACAGAA	545
Db	1456	ATCGTATTGGGATGSCCTATGTTGATCTGACTAGGCGAGTTCCTTGGACTAGCTGAG	1515
Qy	546	TCTAGATGATAGCACTTCAAAATTTGGAGTCTGCTTGGTTGCTCTTGGTTGCGAGAGA	605
Db	1516	TCTTGATGATAGCGGTTTCAACCAATCTGGAGTCTTGGTTGATTGCTCTAGGGCCAAAAGA	1575
Qy	606	ATCTCTGTACCAAGCGGAGACTGGCAATCCAGTGAATACAGGCTTATGTTTCATGCAAT	665
Db	1576	ATGCAATTTTCCAGCTGAATCCGGCAATCCAAATGAATGCAAAAGCTGTATGATTCCT	1635
Qy	666	ATCTAGATCGCGGTGATGGTTAACTGAAAGAAAAGAAAACCTGAATTTTAAAGGGGAGAG	725
Db	1636	GGAGAGGTGTGCGTGATGATTAACAGAGGGAAGAAACACGAGTTCAAAGGAAGATTT	1695
Qy	726	GGTACAGGATCTTGTGATAGGCTCTGTAAGGGTTCAGTAGAACCTGTGCGAGATTTGGTCT	785
Db	1696	AGATTCAGATCTTAAAGAGATTTGGTGAAGGGGAATATTAGCCCTGTTAGAGATTTGGTATC	1755
Qy	786	TGGGTTGCAATGTGCATCAGGCGCTTTGGGGTGCATCTTCTTATGCGAACTACTTGC	845
Db	1756	CGGGTTGACCTTGGCAGCTCCTGCTCTAGGTGCAATTAAGTCTGCTTTCTGAACTTCTCTC	1815
Qy	846	GGATGAGAGCAACTATGGAAACTATACAGTCAACCAATACCACTCAATAGTTTACATGAG	905
Db	1816	AAATGAGGATAACTATGGGNACTTCAATCCGAGATATGATTTGGCGGATTCATGAG	1875
Qy	906	ATTAGATTCGTGCTATGAGAGCACTGAATGTTATGGAGAGCAAAATCAGATCTCTAATAA	965
Db	1876	ACTTGACTCTGCAGCTATGAGGGCGTTGAATGTGTGAGAGCAAAACTGATCTAATAA	1935
Qy	966	AAATTTTAGCTTTTGGTCTGATGATAGAACGTCGTAAGTCTGCTGGAATGGGTAAGAGTT	1025
Db	1936	GAATTTCACTTTTGGTCTCATGAACCAACATGTAACGAGGGATGGTAAAGAGACT	1995
Qy	1026	ATTGCACTGTGCTCAAGCAACTTTTACTAGATGTAGAAGAGATTAACGTAGGCTGGA	1085
Db	1996	GCTTCATATGTGCTGAAGCAACCCCTCGTGGATTTGAATGAGATTTAAGACGAGATTAGA	2055
Qy	1086	TTTAGTTCAATCAATTCGTGGAGGATCTCGGCTTCGCCAAGATTTGAGGCAGCATCTGAA	1145
Db	2056	TATAGTTCAGTGTGTTGTTGAAGAAGCTGGGTTAAGGCAGGATCTTTAGACAGCATCTGAA	2115
Qy	1146	AAGAAATTCAGATTTTGAGCGGCTGACACACAAATCTTGAGAGGAAAGACCGATTTAGT	1205
Db	2116	GCGAATCTCAGATGTTTGAGAGGCTTTTGGCCAGTCTCGAGAGAAAGAGGTGGGTACA	2175
Qy	1206	GACGTTGTAANAACCTAT-----	1224
Db	2176	GCAATATTAAACTCTATACAGTACTTTCCGCACTTCAATCTGCTCTCTCAATGTTAA	2235
Qy	1225	-----	1224

Db 2236 CAAAATTGCATTTTCATTTGTCCTAAATGCTGTTTATGCAACTCTGAAGTATTAGTATGTT 2295
 Qy 1225 -----CAGTCAAGTACGAGTACCA 1245
 Db 2296 ATTAAGTCAATTAATAAAGTCTTCACTTTTCTCTGCGAGTCAGCTATAAAGCTTCCC 2355
 Qy 1246 TATATCAAAAGTGTGTTGGACGTCNTGATGGGCAATTCGAACATCATCAGGGAAGG 1305
 Db 2356 TTCAATCAAAAGTGTGTTGGACGTCNTGATGGGCAATTCGAACATCATCAGGGAAGG 2415
 Qy 1306 TATATGATTTCTAGAGAAATGGAGTGATGATTAATCACCTGGAATAAGTTCATAGTCTTT 1365
 Db 2416 TACCTGAAAAGCTTGGAGCTTTATCAGATCAAGATCACCTTGGAAAGTTCATCGATTG 2475
 Qy 1366 GTGGAATCTTCTGTGACCTTGATCACTTGGAGAAATGGAGTAATCATGATTTCTTTCGCA 1425
 Db 2476 GTTGGAGTCTCTGTGAGATCTTGGACAGCTAGAAAATGGAGTAATCATGATTTCTTCAAC 2535
 Qy 1426 TATGACCAAAATTTATCTGCTCTGAAGATGAGCAAGAGACATTTGGAGCGCAAAATTCAT 1485
 Db 2536 TACGACACCAATTTGGCATCTCTGAAAGATCAGAAAGATTTGCTGGAGCAGCAATTCAC 2595
 Qy 1486 AATTGACCAAACTGCAAACTGCAAACTGCAAACTGCAAACTGCAAACTGCAAACTGCAAA 1545
 Db 2596 GAATTGACCAAAAGACAGCGATAGAACTTGATCTTCAGGTCGACAAAGGCTCTTAACTT 2655
 Qy 1546 GATTAAGAAACAAATTTGGACAGCTCTTCAAACTGCAAACTGCAAACTGCAAACTGCAAA 1605
 Db 2656 GACAAAGCGCGCAATTTGGCATCTCTGAAAGATCAGAAAGATTTGCTGGAGCAGCAATTC 2715
 Qy 1606 AGGAAGCAGCTAAATTTCTCACTACATTTCTCGAACTGCAAACTGCAAACTGCAAACTG 1665
 Db 2716 AGGAAGCAGCTAAATTTCTCACTACATTTCTCGAACTGCAAACTGCAAACTGCAAACT 1725
 Qy 1666 ACCTATCAAACTCAAACTCAAACTCAAACTCAAACTCAAACTCAAACTCAAACTCAAA 1785
 Db 2835 ACAAACCAAACTCAAACTCAAACTCAAACTCAAACTCAAACTCAAACTCAAACTCAAA 2895
 Qy 1786 TTTGCGAGTAT 1796
 Db 2896 TGTTTAGTTAT 2906

RESULT 8
 US-10-424-599-141791
 ; Sequence 141791, Application US/10424599
 ; Publication No. US20040031072A1
 ; GENERAL INFORMATION:
 ; APPLICANT: La Rosa Thomas J
 ; APPLICANT: Kovalic David K
 ; APPLICANT: Zhou Yihua
 ; APPLICANT: Cao Yongwei
 ; TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated with
 ; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
 ; FILE REFERENCE: 38-21(53223)B
 ; CURRENT APPLICATION NUMBER: US/10/424,599
 ; CURRENT FILING DATE: 2003-04-28
 ; NUMBER OF SEQ ID NOS: 285684
 ; SEQ ID NO 141791
 ; LENGTH: 1124
 ; TYPE: DNA
 ; ORGANISM: Glycine max
 ; FEATURE:
 ; NAME/KEY: unsure
 ; LOCATION: (1)..(1124)
 ; OTHER INFORMATION: unsure at all n locations
 ; FEATURE:
 ; OTHER INFORMATION: Clone ID: PAT_MRT3847_99049C.1

US-10-424-599-141791

Query Match 20.7%; Score 627.6; DB 12; Length 1124;
 Best Local Similarity 76.1%; Pred. No. 3.5e-165;
 Matches 785; Conservative 0; Mismatches 246; Indels 1; Gaps 1;
 Qy 37 GAGGAACAGACGAGCTTCCGAGCTTAACTCGATGCTTAAGCAAGCTCAAGGATTTCTC 96
 Db 92 GACCTAAATAAATAACTCCCTGAGCTCAAAATTAGATTCTAAGCAAGCGAAGGTTTCTG 151
 Qy 97 TCATTTCTTCAAAACCCCTGCCCCAAGGACCCCTAGGCGAGTTCGCCCTCTTTGATCGTCGGGAC 156
 Db 152 TCATTTTCAAAACCCCTACCTGATGATCCAAGGCTGTACGGTTTTTGTATCGCCGGAC 211
 Qy 157 TATTATACATCTCATGGAGATGATCAACTTTCATTGCGAGACATATTACCAACACA 216
 Db 212 TATTATATGCCCCATGGTGAATGCTACATTCATTGCAAAAGACCTATTATCCACACTACT 271
 Qy 217 ACTGCGTTACGACAGTTGGGTAAATAGAGCTGATGCCCTTTCCAGTGTGTAGTGTAGTAGA 276
 Db 272 ACAGCTATGCGCAACTGGGCACTGGATCAAAAGTCTTTTCCAGTGTAGTGTAGTGTAGTAGA 331
 Qy 277 AACATGTTTGAACAATAGCTCGTCACTTCTTGGAGAGAAATGGACCGTACTCTTTGAA 336
 Db 332 AACATGTTTGAACAATAGCTCGTCACTTCTTGGAGAGAAACAGACCATACTCTTTGAG 391
 Qy 337 CTATATGAGGCGAGTGGTCAAACTGGAGACTGGTAAAGTGGAAACCCAGGGAATCTT 396
 Db 392 CTCTATGAAGGTAGTGGTCTTAAATGGAGACTGGTCAAAAGTGGAAACCCAGGGAATCTT 451
 Qy 397 GGAAGTGTGAGGATATCTGTTTGTCTTAAATAAATGCAAAATCTCCGGTGTATGCT 456
 Db 452 GGCAAGTGTGAGGATATCTGTTTGTCTTAAACAGTGAATGCAAGATCTCCAGTGTGTT 511
 Qy 457 GCTCTTCTCAAACTTCGGTCAAGATGATGTAAGTTCGGCTTAGCTTAGCTATGTTGATTT 516
 Db 512 GCTTTGTCACTTAACATATCGGAAATGGTGCACCATTTGGTGGTATGTTGATCTA 571
 Qy 517 ACTAAGAGAGTCTTGGTTTAAAGAAATTTCTAGATGATAGCCACTTCAAAATTTGGAG 576
 Db 572 ACTAAGAGAGTCTTGGGATGGCTGAATTCCTTGTGATGATGATCTCACAAATTTGGAG 631
 Qy 577 TCTGCTTTGCTGCTCTGTTGTCAGAGAAATGCTTGTACCGGAGAGCTGGCAAAATCC 636
 Db 632 TCAGCAATTTGTCGACTTGGGCGCAACAGTGCATTCGCTATAGATCTCGCGAATCT 691
 Qy 637 AGTGAATACAGGCTATGTTTGTATGCA-ATATCTAGATGCGCGGTGATGTAACTGAAG 695
 Db 692 ACTGACAAATAGGATGTTGTGTATGATGTTGACTAAATGTTGTTGATGTTAACTGAGAG 751
 Qy 696 AAAGAAACCTGAATTTAAAGGGAGAGATTTGGTACAGGATCTTGGTAGGCTCGTCAAGGG 755
 Db 752 AGAGAAATCTGAATTTAGAACTAGGATCTGGTACAGGATCTTGGCAGGCTTGTAAAGG 811
 Qy 756 TTCAGTAGAACCTGTTTCGAGATTTGGTCTCTGGGTTTCGAATGTGCAATGCAAGCGCTTTGGG 815
 Db 812 CCCTATTGAACAGTTCGAGATTTAGTCTCTGATTTGGATCTGCACCTGGTCTTTAGG 871
 Qy 816 GTGCATATCTTCTTATGCAAACTTCTGCGGATGAGAGCAACTATGGAACATATACAGT 875
 Db 872 GGCAATTAATCTTATGCAAGTCTTGGCAGATGAAAGCAATTAATGAAATATATACTCT 931
 Qy 876 CAAACAACTAACCTCAATAGTTTACATGATGATTTAGATTTCTGCTGCTATGAGCACTGAA 935
 Db 932 GCGTAGTTTCAATCTTGACAGCTACATGAGTTAGACTCTGACGCCATGAGACACTTAA 991
 Qy 936 TGTATGAGAGCAAACTCAGATGCTAATAAATAATTTAGCTTGTTCGGTCTGATGATAG 995
 Db 992 TGTCTTGAAGAGCAAACTGATGCAAAACAAATTTTTCAGTTTGTTCATGATAG 1051
 Qy 996 AACGTGTACTGCTGGAATGGTAAAGGTTTATGCAATGTGGCTGAAGCAACTTACT 1055
 Db 1052 GACTTGTACTGCTGGAATGGGAAAACGNTATTTGACGCTCTGCGCTAAACCAACATTAGT 1111

Qy	1056	AGATGTAGAAGA	1067
Db	1112	AGATGTRAAAGA	1123
 RESULT 9			
US-10-171-581-78			
; Sequence 78, Application US/10171581			
; Publication No. US20030104426A1			
; GENERAL INFORMATION:			
; APPLICANT: Dai, Hongyue			
; APPLICANT: Linsley, Peter			
; APPLICANT: Mao Mao			
; TITLE OF INVENTION: Signature Genes in Chronic Myelogenous Leukemia			
; FILE REFERENCE: 9301-157-999			
; CURRENT APPLICATION NUMBER: US/10/171,581			
; CURRENT FILING DATE: 2002-06-14			
; PRIOR APPLICATION NUMBER: 60/298,914			
; PRIOR FILING DATE: 2001-06-18			
; NUMBER OF SEQ ID NOS: 366			
; SEQ ID NO 78			
; LENGTH: 3080			
; TYPE: DNA			
; ORGANISM: Homo sapiens			
; PUBLICATION INFORMATION:			
; DATABASE ACCESSION NUMBER: U03911			
; DATABASE ENTRY DATE: 2001-06-18			
US-10-171-581-78			
Query Match 13.9%; Score 422.4; DB 14; Length 3080;			
Best Local Similarity 51.4%; Pred. No. 3.3e-107;			
Matches 1195; Conservative 0; Mismatches 1071; Indels 60; Gaps 7;			
Qy	359	ACTGGAGACTGGTAAAAAGTGGAAACCCCGAGGAATCTTTGGAAGTTCTTGAGGATATTCTGT	418
Db	350	ATTGGTATTGGCATATAAGGCTTCTCCTGGCAATCTCTCTCAGTTTCAGAGATATTCTCT	409
Qy	419	TTCGTAATAATGAATGCAAAATTTCTCCGGTGATGTGCTCTTGTCTCCAAACTTCGGTTC	478
Db	410	TTGGTAACAATGATGATGTACGCTTCCATTTGGTGTGTGGGTGTAAANATGCCGAGTTG	469
Qy	479	AGAATGGATGTGAAGTTGGCTTAGGCTATGTTGATATTACTAAAGAGAGTCCCTTGTTTAA	538
Db	470	ATGCCCAGAGACAGGTTGGAGTTGGGTATGTGGATTCATACAGAGGAAACTAGGACTGT	529
Qy	539	CAGAAATTTAGATGATAGCACATTCACAATTTGGAGTCTGCTTTGGTTGCTCTTGTT	598
Db	530	GTGAATTTCCCTGATAATGATCAGTTCTCCAATCTTGAGGCTCTCCTCATCCAGATTGGAC	589
Qy	599	GCAGAGAAATGTTTGACCACCGCAGAGACTGGCAAATCCAGTGAATACAGGCCTATGTTTG	658
Db	590	CAAGGAATGTGTTTTAACCCGGAG---GAGAGACTGCTGGGAGACATGGGGAAACTGAGAC	646
Qy	659	ATGCAATPATCTAGATCGCGGTGATGTTGTTAACTGAAAGAAAGAAACTGAAATTTAAAGGGA	718
Db	647	AGATAATTTCAAAGAGGAGGAATTTCTGATTCAGAAAGAAAGAAAGAGTCTGACITTTCCCAA	706
Qy	719	GAGATTTGGTACAGGATCTTGGTAGGCTCGTCAAGGGTTCA-----GTAGAAC	766
Db	707	AAGACATTTATCAGGACCTCAACCGGTTGTTTGAAGGCCAAAGAGGAGACAGATGAATA	766
Qy	767	CTGTTCAGAGATTTGGTCTCTCGGTTCCGAATGTGCATCAGGCGCTTTGGGGTGCATCTTT	826
Db	767	GTGCTGTATTGCCAGAAATGAGAAATCAGGTTTGAGTTTCTCATCTGCTCGGGTAATCA	826
Qy	827	CTTATGCAGAACTACTCTTCGGATGAGAGCAACTATGGAAACTATACAGTCAAAACAATACA	886
Db	827	AGTTTTTTAGAACTCTTATCAGATGATTTCCAACTTTGGACAGTTTGAACCTGACTACTTTTG	886
Qy	887	ACCTCAATAGTTACATGAGATTAGATTTCTGCTGCTATGAGAGCACTGATGATTTTGGAGA	946
Db	887	ACTTCAGCCAGTATATGAAATTTGATATTCAGAGCTCAGAGCCCTTAACCTTTTTCAGG	946

QY 2024 ACATGGGTGGAAGTGCACCTACATTCGGCAGGTGGTGTGAATGTCCTGATGCCCAAG 2083
 Db 2015 ATATGGGAGGTAAATCAACATATATTCGACAACTGGGGTGATAGTACTCATGSCCAAA 2074
 QY 2084 TTGGCTCGTTTGTTCATGTCACATGCTACATTCCTATTCGTGATGATTTTGTGTC 2143
 Db 2075 TTGGGTGTTTGTGTCATGTCAGTCAGCAGCAAGTGTCCATTTGTGACTGCACTTAGCCC 2134
 QY 2144 GTGTGGCGCTGGAGATTGCCAGCTGACAGAGTTCCTACCTTTTATGCAAGAGATGCTTG 2203
 Db 2135 GAGTAGGGCTGGTGCACATCAATTTGAAGAGGCTCCACGTTTATGGCTGAATGTGG 2194
 QY 2204 AGACTGCATCGATCTTGAAGAGGACTACTGATAGATCAATGATATATTAATGATGATGG 2263
 Db 2195 AAACTGCTTCTATCCTCAGGTCTGCAACCAAGATTTCATTAATAATCATAGATGAATTGG 2254
 QY 2264 GCCGTGGACATCAACCTPACCATGGCTTGTGTTAGCTTGGGCTATTTGTGAGCACATTG 2323
 Db 2255 GAAAGAGNACTTCTACCTPACCATGATTTGGTTAGCATGGGCTATATPAGAAATACATTG 2314
 QY 2324 TTGAAGAAATTAAGCAACCAATTTGTTGCCACTCACTTTTCATGAGCTGACTGCATTAG 2383
 Db 2315 CAACAAGATGTTGCTTTTTCATGTTTTCGCACTTTGCAACCCATTTTCATGAACTTACTGCTTGG 2374
 QY 2384 CCAACAAGATGGAGACATGACATAGAAAATGCTGGGATAGCAAAATTTTCATGTTT 2443
 Db 2375 CCAATCAG-----ATACCAACTGTTAATAATCTACATGTCA 2410
 QY 2444 TTGCACACATTGACCTTCTAATCGAAGCTAATCTATGCTTTTACAGGTTTCAACCCAGTG 2503
 Db 2411 CAGACTCA-----CNACTGAGAGACCTTAACTATGCTTTTACAGTGAAGAAAGGTG 2464
 QY 2504 CTGTGATCAGAGTTTGGTATTCATGTTGCTGAATTTGCAAAATTTTCCACCGAGTGTG 2563
 Db 2465 TCTGTGATCAAGTTTGGGATTCATGTTGAGAGCTTGCTAAATTCCTTAAGCATGTAA 2524
 QY 2564 TGGCTCTGGCTAGAGAAAAGGCTGCTGAGTTGGAGGATTTCTCCTATGCCCATAATTC 2623
 Db 2525 TAGAGTGTCTTAAACAGAAAGCCCTGGAACTGTGAGGAGTTTTCAGTATATTTGGAGATTCGC 2584
 QY 2624 CAATGACATTAAGAGGACGCTTCAAAACGGAAGAGAGATTTGA 2669
 Db 2585 AAGGATATGATATCATGGAACAGCAGCAAGAAGTGTATCTGGA 2630

RESULT 10
 ; Sequence 1794, Application US/10062674
 ; Publication No. US20040005559A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Loring, Jeanne F.; Kaser, Matthew R.
 ; TITLE OF INVENTION: MARKERS OF NEURONAL DIFFERENTIATION AND MORPHOGENESIS
 ; FILE REFERENCE: PA-0026-1 CIP
 ; CURRENT APPLICATION NUMBER: US/10/062,674
 ; CURRENT FILING DATE: 2002-01-30
 ; PRIOR APPLICATION NUMBER: US 09/625,102
 ; PRIOR FILING DATE: 2000-07-24
 ; NUMBER OF SEQ ID NOS: 2217
 ; SOFTWARE: PERL Program
 ; SEQ ID NO 1794
 ; LENGTH: 3161
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 ; FEATURE:
 ; NAME/KEY: misc feature
 ; OTHER INFORMATION: Incyte ID No. US20040005559A1 251562.5
 ; US-10-062-674-1794

Query Match 13.9%; Score 422.4; DB 15; Length 3161;
 Best Local Similarity 51.4%; Pred. No. 3.4e-107;
 Matches 1195; Conservative 0; Mismatches 1071; Indels 50; Gaps 7;
 QY 359 ACTGAGACTGGTAAAGTGAACCCAGGGAATCTTGAAGTTTGGAGATATTCGT 418

Db 425 ATTGGTATTTGGCATATAAGGCTTCTCTCGCAATCTCTCTCAGTTTGAAGACATTTCTCT 484
 QY 419 TTGCTAATAATGAATGCAAAATTTCCCGGTGATGTGCTCTTGGCTCCAAATTCGGTC 478
 Db 485 TTGGTAACAATGATATGTCAGCTTCCATTTGGTGTGTGGGTGTATAAATGTCGCGAGTTG 544
 QY 479 AGAATGGATCTGAAGTTGGCTTAGGCTATGCTATGATATTTACTAAGAGAGTCTTGGTTAA 538
 Db 545 ATGGCCAGAGACAGTTGGAGTTGGGTATGTGGANTCCATACAGAGGAAACTAGGACTGT 604
 QY 539 CAGAAATTTCTAGATGATPAGCCACTTCAAAAATTTGGAGTCTGCTTTGGTCTCTTGGTT 598
 Db 605 GTGAATTTCCCTGATATATGATCAGTTCTCCAACTCTTGAAGCTCTCTCATCCAGATTGGAC 664
 QY 599 GCAGAGATGCTTTGTACACAGCGGAGACTGCGAAATCCAGTGAATACAGGCTATGTTG 658
 Db 665 CAAAGGAATGTGTTTACCCTGGAG--GAGAGACTGCTGGAGACATGGGGAACCTGAGAC 721
 QY 659 ATGCAATATCTAGATGGCGCTGATGTTAACTGAAAGAAAGAAACTGAAATTTAAAGGGA 718
 Db 722 AGATTAATTCAGAGGAGGAAATCTGATCAGAAAGAAAGAAAGCTGACTTTTCCCAA 781
 QY 719 GAGATTTGTAAGGATCTTTGGTAGGCTCTGCAAGGTTTCA-----GTGAAC 766
 Db 782 AAGACATTTTATCAGGACCTCAACCGGTTGTTGAAAGGCAAAAGGAGAGCAGATGAATA 841
 QY 767 CTGTTGAGATTTGGTCTCTCGGTTGCAATGTGATCAGCGGCTTTGGGTGCTATCTTT 826
 Db 842 GTGCTGTTATGCCAGAAATGAGAAATCAGGTTGAGTTTTCATCACTCTCTGCGGTAATCA 901
 QY 827 CTTATGACAGAACTACTTGGCGATGAGAGCAACTATGAAACTATACAGTCAAAACAATA 886
 Db 902 AGTTTGTAGAACTCTTATCAGATGATTCGAATTTGAGCAGTTTGAAGTGAATCTTTG 961
 QY 887 ACCTCAATAGTTATCATGAGATTTAGATTTCTGCTATGAGAGCACTGAATTTTATGAGA 946
 Db 962 ACTTCAGCCAGTATATGAAATTTGATATTCAGCAGTCAGAGCCCTTAACTTTTTCAGG 1021
 QY 947 GCAATCAGATGCTATAAAAAATTTTACGTTTTCGCTGTGATGAATAGACGTTACTG 1006
 Db 1022 GTTCTGTTGAAGATACCACTGACTCTCAGTCTCTGCTGCTGCTGCTGAATAGTGTAAAA 1081
 QY 1007 CTGGAATGGGTAAAGGTTTATGCAATGTTGGCTGAAGCAACCTTTACTAGATGAGAAG 1066
 Db 1082 CCCTCAAGGACAAAGACTTTGTTAAACAGTGGATTAGCAGCTCTCATGATGAAGACA 1141
 QY 1067 AGATTAACTGTAGCTGGATTTAGTTCAATCAATTCGTTGGAGGATGCTGCGCTTGCACAAG 1126
 Db 1142 GAATAGAGGAGAGATTGAATTTAGTGAAGCTTTTGTAGAAGATGCAAAATTTGAGGAGA 1201
 QY 1127 ATTGAGGCAAGCAT--CTGAAAGAAATTTTCAGATTTGAGCGGCTGACACACAATCTTG 1183
 Db 1202 CTTTACAGAGATTTTACTTCGCTGATTTCCAGATCTTAAACCAGCTTGCACAGAGTTTC 1261
 QY 1184 AGAGGAAAGAGCCAGTTTAGTGCAGTTGTAAAACTCTATCAGTCAAGTACCAGAGTAC 1243
 Db 1262 AAAGACAGCAGCAAACTTACAGATTTGTTACCGACTCTATCAGGTTATPAAATCACTAC 1321
 QY 1244 CATATATCAAAAGTGTGTTGAAACGTCATGATGGGCAATTTGCAACACTCATCAGGAAA 1303
 Db 1322 CTAATGTTATACAGGCTCTGGAAAAACATGAAGGAAAAACACAGAAATTTATTTGGCAG 1381
 QY 1304 GGTATATTGATTTCTTAGAGAAATGAGTGAATGATATCACCCTGAATAGTTTCATAGTC 1363
 Db 1382 TTTTGTGACTCTCTTACTGA-----TCTTGTGCTGACTTCTCCAAAGTTTTCAGAAA 1435
 QY 1364 TTGTGAAACTTCTGTTGACCTTTGATCAACTTGAAGATGGAGAAATACATGATTTCTTCTG 1423
 Db 1436 TGATAGAAACAACTTTAGATATGATCAGGTGGAAGAAACCATGATGATTTCTTTGTAACCTT 1495
 QY 1424 CATATGACCCCAAAATTTATCTGCTCTGAAAGATGAGCAAGACATTTGGAGCGCAAAATTC 1483

Db 1496 CATTGTGATCCCTAATCTCAGTGAATTAAGAGAAATAATGAATGACTTGGAAAGAGATGC 1555
 QY 1484 ATAATTTGCAACAAACAGTCCCAATGATCTTGATCTTACCTATTGATTAAGTCACTTAAAC 1543
 Db 1556 AGTCAACATTAAATAGTGCAGCCAGAGATCTTGCTTGGACCCCTGGCAACAGATTAAAC 1615
 QY 1544 TAGATAAAGAAACAAATTTGGACAGCTCTTCCAGATTTACCAAGAAAGAAAGCAAAAG 1603
 Db 1516 TGGATTCAGGTGACAGTTGGATTAATTAATTTCTGTTAACTGTAGAGAAAGAAAGTCC 1675
 QY 1604 TCAGAGAGAGCTAAATTTCTCACTACATGTTGTTTCGAAACACGTAAGATGGGGTAAAGT 1663
 Db 1676 TTCGTAA-----CAATATAAAACCTTTAGTACTGTAGATATCCAGAGAAATGGTGTAAAT 1729
 QY 1664 TCACCTATACAAACTCAAAACCTAGAGATCAGTTCCAGAGATTTGTAGAGAGTACA 1723
 Db 1730 TTACCAACAGCAATGACTCTTTTAAATGAAGAGTATACCAAAATTAACAGAAATATG 1789
 QY 1724 AAAGCTGTCAAGAAAGAAATTTGGTAGCTGCTGTAGTTTCAACAGCTGCGAGTTTCTCCGAGG 1783
 Db 1790 AAGAAGCCAGGATGCCATTTGTTAAAGAAATTTGTCATATTTCTTCAGGCTATGTAGAC 1849
 QY 1784 TGTTCAGGTATAGCTGGTGTACTGCTGAGTTGGAGTGTGTACTGAGTTTTCGCGATT 1843
 Db 1850 CAATGCAGACACTCAATGATGTGTAGCTCAGCTAGATGCTGTGTGCTGCTCAGC 1909
 QY 1844 TGGTCCGAGTTGCCCACTCCCTACACAGACCAATATACAGTCCACCATACAGATACAGAG 1903
 Db 1910 TGTCAATGAGACCTGTTCCATATGTACACAGCAGCCATTTTGGAGAAAGGACAGGAA 1969
 QY 1904 ATATTATCTTGAAGGGTGTAGGCATCTTGTGTGAAGCTCAAGATTTGGGTTAACTCCA 1963
 Db 1970 GAATTAATTAAAGAGCATCCAGGCATGCTTGTGTGAAGTTCAAGATGAATTTGCAATTA 2029
 QY 1964 TTCTTAATGACTGTAGACTAGTTAGGGAGAGAGTTGGTTTCAAGATATACAGGCCCTA 2023
 Db 2030 TTCTTAATGACTGTATCTTTGAAAGAAATAAAGATGTTTCCCATCAATTAATGCTGCCCA 2089
 QY 2024 ACATGGTGGAAAGTGCACCTTACATTCGGCAGGTTGGTGTGATGCTGATGCCCCAAG 2083
 Db 2090 ATATGGGAGGTAAATCAACATATATTCGACAACTGGGGGTGATAGTACTATGCGCCAAA 2149
 QY 2084 TTGGCTCGTTTGTTCATGTGACAAATGCTACATTTCTATTGTTGATGTTATTTTCTC 2143
 Db 2150 TTGGGTCTTTTGTGCCATGTGAGTGCAGAGAGTTCATTTGTGACTGTGATCTTAGCCC 2209
 QY 2144 GTGTGGCGCTGGAGATTCGACGTGAGAGAGTTTCTATTTTATGCAAGAGATGTTG 2203
 Db 2210 GAGTAGGGGCTGTGTGACAGTCAATTTGAAAGAGTCTCCACGTTTCATGGCTGAAATGTTG 2269
 QY 2204 AGACTGCATCGATCTTGAAGGAGCTACTGATAGATCATTTGATTAATTTGATGAGTTGG 2263
 Db 2270 AACTGCTTCTATCTCAGGTCTGCAACCAAGATTCATTAAATATCATAGATGAATGG 2329
 QY 2264 GCGTGGGACATCAACCTACGATGGCTTGGTTTGTAGCTTGGGCTTATTTGTGAGCACATTG 2323
 Db 2330 GAAGAGGAACTTCTACCTACGATGATTTGGTTAGCATGGGCTATATCAGATACATTG 2389
 QY 2324 TTGAAGAAATTAAGACCAACATTTGTTGCACTGCTATGAGTGTGAGTGTGATG 2383
 Db 2390 CAACAAAGATTTGGTGTCTTTTTCATGATGTTTTCACCCATTTTCATGAACCTTACTGCCTGG 2449
 QY 2384 CCAACAGATGGAGACAAATGCAATAAGAAATGCTGGGATAGCAAAATTTTCATGTTT 2443
 Db 2450 CCAATCAG-----ATACCAACTGTTTAAATCTACATGCA 2485
 QY 2444 TTGCACACATTTGACCCCTTCTAATCCGACGTAACTATGCTTTTACAGGTTTCAACCCAGTG 2503
 Db 2486 CAGCACTCA-----CCACTGAAGAGACCTTAACTATGCTTTTATCAGGTGAGAAAGTG 2539
 QY 2504 CTTGTGTACAGATTTTGGTATTCATGTTGCTGAATTTGCAAAATTTTCCACCGAGTGTG 2563
 Db 2540 TCTGTGATCAAAAGTTTGGGATTCATGTTGAGAGCTTGTCTAAATTTCCCTAAGCATGTAA 2599

QY 2564 TGGCTCTGGCTAGAGAAAGGCACTCTGAGTTGGAGATTTCTCTCTCTATTGCCAATATTC 2623
 Db 2600 TAGAGTGTGCTAAACAGAAAGCCCTCGAATCTTGAGGATTTTCAGTATATTGGAGATCGC 2659
 QY 2624 CAAATGACATTAAGAGGCGAGCTTCAAAACGGAAGAGAGATTTGA 2669
 Db 2660 AAGGATATGATATCATGGAACACGACGACAAAGAGTCTATCTGGA 2705

RESULT 11

US-10-109-791A-3
 ; Sequence 3, Application US/10109791A
 ; Publication No. US20030138787A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Biotech OncoLogic Corp.
 ; TITLE OF INVENTION: Functional Genetic Tests of DNA Mismatch Repair
 ; FILE REFERENCE: BTOL 102 NP
 ; CURRENT APPLICATION NUMBER: US/10/109,791A
 ; CURRENT FILING DATE: 2002-09-06
 ; NUMBER OF SEQ ID NOS: 315
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 3
 ; LENGTH: 2805
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-10-109-791A-3

Query Match 13.9%; Score 420.8; DB 14; Length 2805;
 Best Local Similarity 51.3%; Pred. No. 8.8e-107;
 Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;

QY 359 ACTGAGACACTGGTAAAGGTGGAAACCCAGGGAACTCTTGGAAAGTTTGGAGATATTCGT 418
 Db 347 ATTGGTATTTGGCATATAAGGCTTCTCTCGCAATCTCTCTCAGTTTGAAGACATTTCTCT 406
 QY 419 TTGCTAATATGAATGCAGAAATTTCCGGTGATTCGCTCTTGTCTCCAACTTCGGTC 478
 Db 407 TTGGTAACAATGATATGTACGTTCCATTTGGTGTGTTGAAATCTCCGACGTTG 466
 QY 479 AGAATGGATGTGAAGTTGGCTTAGGCTATTTGATATTAATAAGAGAGTCTCTTGGTTTAA 538
 Db 467 ATGCCACAGACAGAGTTGGATTTGGGTATGTGATTCACACAGAGAAACTAGGACTGT 526
 QY 539 CAGAAATTTAGATGATAGCACTTCAAAATTTGGAGTCTGCTTGGTCTCTTGGTT 598
 Db 527 GTGAATTTCCCTGATATGATCAGTTCTCCAATCTTCAAGGCTCTCTCATCAGATTGGAC 586
 QY 599 GCAGAGATGCTCTTTGACAGCGGAGACTGGCAATCCAGTGAATACAGGCTATGTTTG 658
 Db 587 CAAAGGAATGTGTTTACCCGGAG---GAGAGACTGCTGGAGACATGGGAAACTGAGAC 643
 QY 659 ATGCAATATCTAGATCGGCGTGTATGATGTAATCTGAAAGAAAGAAACTGAAATTTAAAGGGA 718
 Db 644 AGATAATTTCAAGAGGAGGAGAAATTTCTGATCAGAGAAAGAAAGAGCTGTTTCCACAA 703
 QY 719 GAGATTTGGTACAGGATCTTGGTAGGCTCGTCAAGGGTTCA-----GTAGAAC 766
 Db 704 AAGCAATTTATCAGGACCTCAACCGGTTTGTGAAGGCAAAAGGAGGAGACAGATGAATA 763
 QY 767 CTGTTCCAGATTTGGTCTCTCTGGGTTCGAATGTCATCAGGCGCTTTGGGGTGCATACCTTT 826
 Db 764 GTGCTGTATTGCCAGAAATGGAGAAATCAGTTGAGTTTCATCTCATCTGTCTGCGGTATCA 823
 QY 827 CTTATGCAGAACTACTTGGCGATGAGAGCAACTATGGAACCTATACAGTCAAAACAATACA 886
 Db 824 AGTTTTTAGAACTCTTATCAGATGATTTCCAACTTTGGACAGTTTGAACCTGACTACTTTG 883
 QY 887 ACCTCAATAGTTACATGAGATTTAGATTTCTGCTGCTATGAGAGACATGAAATGTTATGAGA 946
 Db 884 ACTTCAGCAGATATGAAATTTGSAATTTGAGATTTGAGAGCTCAGAGCCCTTAACTTTTTCAGG 943
 QY 947 GCAATCAGATGCTAATAAATAATTTTAGCTTGTTCGTTGATGAATAGAACCTGTACTG 1006

Db 944 GTTCGTGTAAGATACCACTGGCTCTCAGTCTCTGGCTGCTGCTGAATAGGTAA 1003
 Qy 1007 CTGGAATGGGTAAAGGTTATGACATGTGGCTGGAAGCAACCTTTACTAGATGAGAG 1066
 Db 1004 CCCCTCAAGGCAAGAAGCTTGTAAACCAAGTGGATTAAGCAGCCTCTCATGATGAAGA 1063
 Qy 1067 AGATTAACTGTAGGCTGGATTAGTTAGTTCAATCATTCGTGGAGGATGCTGCGCTTCGCCAAG 1126
 Db 1064 GAATAGAGGAGAGATTGAATTTAGTGGAGCTTTGTAGAGATGCGAATTTGAGGCAGA 1123
 Qy 1127 ATTTGAGCAGCAT---CTGAAAAGAAATTCAGATATTGAGCGGCTGACACAAATCTTG 1183
 Db 1124 CTTTACAAAGAAATTTACTTCGTGCAATCCAGATCTTAACCGACTTCCCAAGAAGTTTC 1183
 Qy 1184 AGAGAAAGAGCCAGTTTGTAGTGCAGCTGTGAAACCTATCAGTCAAGTACAGATAC 1243
 Db 1184 AAAGACAGCAGCAAACTTCAAGATTGTACCAGCTATCAGGGTATAAATCAACTAC 1243
 Qy 1244 CATATATCAAAAGTGTGTTGGAACGTCTATGATGGCAATTTGCAACACTCATCAGGAAA 1303
 Db 1244 CTATGTTATACAGCTCTGGAATAAATGAGGAAACACAGAAATTAATTTGTTGCAG 1303
 Qy 1304 GGTATATTGATCTCTAGAGAAATGGAGTGAATGATGATCACTGAAATGATGATGATGAT 1363
 Db 1304 TTTTGTGACTCTCTTACTGA-----TCTTCGTCTGACTTCTCCAAAGTTTCAGGAAA 1357
 Qy 1364 TTGTGGAACCTCTGTGACCTTGTATCACTGAGATGGAGATGATGATGATGATGATGAT 1423
 Db 1358 TGTATGAAACAACTTTAGATGATGATGATGATGATGATGATGATGATGATGATGAT 1417
 Qy 1424 CATATGACCCAAATTTATCTCTCTGAGGATGAGCAAGAGATGATGAGGAGCAAAATTC 1483
 Db 1418 CATTTGATCTTAATCTCAGTGAATTAAGAGAAATAATGATGACTTGGAAAGAGATGC 1477
 Qy 1484 ATAAATTTGCAAAACAACTGCCAATGATCTGATCTTACCTATTGATGATGATGATGAT 1543
 Db 1478 AGTCAACATTAATTAAGTGCAGCCAGATCTTGGCTTGGACCTTGGCAAAACAGATTAAC 1537
 Qy 1544 TAGATAAAGAAACAAATTTGAGCAGCTCTGAGATTTACCAAGAAAGAAACCAAAAG 1603
 Db 1538 TGGATTCAGTGCAAGTTTGGATTAATTAATTTGATGATGATGATGATGATGATGATGAT 1597
 Qy 1604 TCAGGAAGCAGCTAAATTTCTCACTACATTTGTTCTGAAACAGTAAAGATGGGTAAAGT 1663
 Db 1598 TCTGTAA-----CAATAAAACCTTTAGTACTGATGATATCCAGAGAAATGTTTAAAT 1651
 Qy 1664 TCACCTATACAAACCTCAAAACCTAGAGATCAGTCCAGAGATTTGAGAGATGATGAT 1723
 Db 1652 TTACCAACAGCAAAATTTGATCTTTTAAATGAAGATGATACCAAAATTAATAACAGATATG 1711
 Qy 1724 AAAGCTGTCAAGAAAGATTTGATGCTGCTGATGTTCAACAGCTGCGAGTTTCTCCGAGG 1783
 Db 1712 AAGAAGCCAGATGCCATTTGTAAGAAATTTGATATTTCTTCAGGCTATGATGAT 1771
 Qy 1784 TGTGTCAGGATAGCTGGTGTACTGCTGATGATGATGATGATGATGATGATGATGATGAT 1843
 Db 1772 CAATGCAACACTCAATGATGTTAGTCTGATGATGATGATGATGATGATGATGATGATGAT 1831
 Qy 1844 TGGCTGCCAGTTGCCAACTCCCTACACAGAACCAATATCAGTCCACCATATGATGATGAT 1903
 Db 1832 TGTCAATGAGAGACCTTCTCCATATGATGATGATGATGATGATGATGATGATGATGATGAT 1891
 Qy 1904 ATATTATCTTTGAAGGTTGATGATGATGATGATGATGATGATGATGATGATGATGAT 1963
 Db 1892 GAATATATTAAGATCCAGGATGATGATGATGATGATGATGATGATGATGATGATGAT 1951
 Qy 1964 TTCTTAATGACTGTAGTACTGATGATGATGATGATGATGATGATGATGATGATGATGAT 2023
 Db 1952 TTCTTAATGACTGTAGTACTGATGATGATGATGATGATGATGATGATGATGATGATGAT 2011
 Qy 2024 ACATGGGTGGAAGTGCACCTACATTCGGAGGTTGGTGGTGAATGCTGATGATGATGATGAT 2083

Db 2012 ATATGGAGGTAAATCAACATATATTCGACAAAACCTGGGTGATAGTACTCATGTCGCCAAA 2071
 Qy 2084 TTGGCTGTTTGTTCATGATGACAAATGCTACCATTTCTATTCGTGATGATGATGATGATGAT 2143
 Db 2072 TTGGGTGTTTGTGGCCATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2131
 Qy 2144 GTGTGTCGCTGGAGATTTGCCAGCTGAGAGAGTTTCTTACTTTTATGCAAGAGATGCTTG 2203
 Db 2132 GATGAGGCTGGTGCAGATCAATTTGAAGAGGCTCCACGTTCACTGCTGAAATGTTGG 2191
 Qy 2204 AGACTGATGATGATTTGAAAGAGGCTACTGATGATGATGATGATGATGATGATGATGATGAT 2263
 Db 2192 AAATGCTGCTTATCTCAGGTCTGCAACCAAGATTTCAATTAATCAATGATGATGATGATGAT 2251
 Qy 2264 GCGTGGGAGCATCAACCTCAGATGCTGTTGTTGTTAGCTTGGGCTATTTGTTGAGCACATTG 2323
 Db 2252 GAGAGGAATCTTCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2311
 Qy 2324 TTGAAGAAATTTAAAGCAACCAATTTGTCCTACTCTCATGCTGATGATGATGATGATGATGAT 2383
 Db 2312 CAACAAAGATTTGGTGTCTTTTTCATGATGATGATGATGATGATGATGATGATGATGATGAT 2371
 Qy 2384 CCAACAAAGATGAGAGCAATGAGCAATGAAGAAATGCTGGGATGAGCAAAATTTTCTGATGAT 2443
 Db 2372 CCAATCAG-----ATACCACTGTTAATAATCTCATGATGATGATGATGATGATGATGAT 2407
 Qy 2444 TTGCACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2503
 Db 2408 CAGCACTCA-----CCATGAGAGACCTTAATGATGATGATGATGATGATGATGATGATGATGAT 2461
 Qy 2504 CTTGTGATCAGAGTTTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2563
 Db 2462 TCTGTGATCAAGTTTGTGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2521
 Qy 2564 TGGCTGCTGGCTAGAGAAAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2623
 Db 2522 TAGAGTGTGTTAAACAGAAAGCCCTGGAACCTGAGGAGTTTTCAGTATATTTGGAGATGCG 2581
 Qy 2624 CAATGATCAATTAAGAGGAGCTTCAAAACGAGAGAGATTTGA 2669
 Db 2582 AAGAT 2627

RESULT 12

US-09-788-657-9, Application US/09788657
 ; Sequence 9, Patent No. US20020123149A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Nicolaides, Nicholas
 ; APPLICANT: Sasse, Philip
 ; APPLICANT: Kinzler, Kenneth
 ; APPLICANT: Grasso, Luigi
 ; APPLICANT: Vogelstein, Bert
 ; TITLE OF INVENTION: Methods for generating hypermutable
 ; TITLE OF INVENTION: Yeast
 ; FILE REFERENCE: 01107.00097
 ; CURRENT APPLICATION NUMBER: US/09/788,657
 ; CURRENT FILING DATE: 2001-02-21
 ; PRIOR APPLICATION NUMBER: 60/184,336
 ; PRIOR FILING DATE: 2000-02-23
 ; NUMBER OF SEQ ID NOS: 25
 ; SOFTWARE: FastSeq for Windows Version 3.0
 ; SEQ ID NO 9
 ; LENGTH: 3145
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 ; US-09-788-657-9

Query Match 13.9%; Score 420.8; DB 9; Length 3145;
 Best Local Similarity 51.3%; Pred. No. 9 6e-107;
 Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;

Qy 359 ACTGGAGCTGGTAAAGTGAACCCAGGGAATCTTGGAGTTTGGAGATATTCTGT 418

Db	415	ATTGGTATTGGCATATAAGGCTTCTCTGGCAATCTCTCAGTTTGAAGACATTTCTCT	474
Qy	419	TTGCTAATAATGAATGCAGAAATTTCTCGGTGATGTGCTTCTTGTCTTGTCTCCAAACTTGGGTC	478
Db	475	TTGGTAACAATGATATGTAGCTTCCATGGTGTGTGGGTGTAAATGTCCGAGTTG	534
Qy	479	AGAAATGGATGTGAAGTTGGGCTTAGGCTATGTGTATATTAATAAGAGAGTCTTTGGTTTAA	538
Db	535	ATGCCACAGACAGGTTGGAGTTGGGTATGTGGATTCATACAGAGAAACTAGGACTGT	594
Qy	539	CAGAAATTTCTAGATGATAGCCACTTCCAAATTTGGAGTCTGCTTTGGTGTCTCTTGGTT	598
Db	595	GTGAATTTCCCTGATAAATGATCAGTTTCTCCAATCTTGAGGCTCTCTCATCCAGATTGGAC	654
Qy	599	GCAGAGAAATGCTTGTGTACCAGCGGAGACTGCAAAATCCAGTGAATAACAGGCTATGTTTG	658
Db	655	CAAGGAATGTGTTTATCCGGAG--GAGAGACTGCTGGAGCATGGGAAACTGAGAC	711
Qy	659	ATGCAATPATCTAGATCGGGGTGATGTAACTGAAGAAAGAAACTGAAATTTAAAGGGA	718
Db	712	AGATAATTCAAAGAGGAGGAATCTGATTCAGAAAGAAAGAAAGCTGACTTTTCCCAA	771
Qy	719	GAGATTTGGTACAGGATCTTGGTAGGCTCGTCAAGGGTTCA-----GTAGAAC	766
Db	772	AAGACATTTTATCAGGACCTCAACCGGTTGTTGAAGGCCAAAGAGGAGAGCAGATGAATA	831
Qy	767	CTGTTCTCAGATTTGCTCTGGGTTCCAAATGTGCATCAGGGCGCTTCGGGTGCATACTTT	826
Db	832	GTGCTGTATTGCCCAAAATGGAGNAATCAGGTTGCGATTTCACTACTCTGCGGTATCA	891
Qy	827	CTTATGCAGAACTACTTTCGGATGAGAGCAACTATAGGAACTATACAGTCAAAACAATACA	886
Db	892	AGTTTTTAGAACTCTTATCAGATGATTTCCAACTTTTGCACAGTTTGAACCTGACTACTTTG	951
Qy	887	ACCTCAATAGTTACATCAGATTAGATTCTGCTGTATGAGAGCACTGAAATGTTATGGAGA	946
Db	952	ACTTCACCCAGTATATGAAATTTGGATATTGCAGCAGTCAGAGGCCCTTAACTTTTCAGG	1011
Qy	947	GCAAACTCAGATGCTAATAAAAAATTTTAGCTTGTTGGCTCTGATGAATAGAACGTTACTG	1006
Db	1012	GTTCCTGTTGAAGATACCACTGGCTCTCAGTCTCTGGCTGCTGCTGAAATAGGTAAAA	1071
Qy	1007	CTGGAATGGGTAAAAGTTATTGCACATGTGGCTGAAGCAACCTTTACTAGATGTAGAAG	1066
Db	1072	CCCTCAAGGACAAAGACTTGTTAAACAGTGGATTAAAGCAGCCTCTCATGATAAGAAACA	1131
Qy	1067	AGATTACTGTAGGCTGATTTAGTTCAATCTCGTGGAGGATGCTGCGCTTCGCCAAG	1126
Db	1132	GAATAGAGGAGAGATTGAATTTTAGTGGAACTTTTGTAGAAGATGCAGAATTCAGGCAGA	1191
Qy	1127	ATTTTGAGGCAAGCAT--CTGAAAAAGAAATTCAGATATTGAGCGCTGCACACAACTCTTG	1183
Db	1192	CTTTTACAGAGATTACTTTCGTGATTTCCAGATCTTAACCGACTTCGCAAGAGTTTC	1251
Qy	1184	AGAGGAAAAGCCAGTTTATGTCACGCTTGTAATAACTCTATCAGTCAAGTACCAGAGTAC	1243
Db	1252	AAAGACAAGCAGCAAACTTACAGATTGTTTACCGACTCTATCAGGATATAATCAACTAC	1311
Qy	1244	CATATATCAAAAGTGTTTTGGAACTCATGATGGGCAATTTGCAACTCATCAGGGAAA	1303
Db	1312	CTAATGTTATACAGGCTCTGGAAAAACATGAAGGAAACACCGAAATTTATGTTGGCAG	1371
Qy	1304	GGTATATTGATTTCTTAGAGAAATGGAGTGATGATAATCACTTGAAATAGTTCATAGGTC	1363
Db	1372	TTTTTGTGACTCCTCTTACTGA-----TCTTGGTCTGACTTCTCGAGTTTTCAGGAAA	1425
Qy	1364	TTTGGAAACTCTGTGTGACCTTGATCAACTTGAGAAATGGAGAATACATGATTTCTTCG	1423
Db	1426	TGATAGAAAACACTTTAGATATGATCAGGTGGAAAAACCATGATTTCTTGTAAAACCTT	1485
Qy	1424	CATATGACCCAAATTTATCTGCTCTGAAGGATGAGCAAGAGACATTTGGAGCGCAAAATTC	1483

Db	1486	CATTGTGATCCTAATCTCAGTGAATTAAGAGAAATAATGAATGACTTTGGAAAAAGAGATGC	1543
Qy	1484	ATAATTTGGCAAAACAAACCTGCCAATGATCTTTCATCTACCTATTTGATAAGTCACTCTAAAC	1543
Db	1546	AGTCAACATTAATAAGTGCAGCCAGAGATCTTGGCTTGGACCTCGCAACACAGATTAAAC	1505
Qy	1544	TAGATAAAGMAAACAAATTTTGGACACGCTTTCAGAATTTACCAAGAAAGAACCCAAAAG	1603
Db	1606	TGGATTCAGTCGACAGTTTGGATATTACTTTTCGTGTAACTCTTAAGGAAGAAAAAGTCC	1665
Qy	1604	TCAGGAGCAGCTAAATTTCTCACTACATCTGTTCTCGAAACACGATAGGATGGGGTAAAGT	1663
Db	1666	TTGCGTAA-----CAATATAAAACTTTTAGTACTCTGTAGATATCCAGAAAGATGGTGTAAAT	1719
Qy	1664	TCACCTATACAAAACTCAAAAACTAGGAGATCAGTTTCCAGAAAGATTTGTAGAGGAGTACA	1723
Db	1720	TTACCAACAGCAAAATTCGACTCTTTTAATGAGAGATATACCAAAATATAAACAGATATG	1779
Qy	1724	AAAGCTGTCAAGAAGAAATGGTAGCTCGTGTAGTTTCAAACAGCTGCGAGTTTCTCCGAGG	1783
Db	1780	AAGAAGCCCAAGGATGCCATTTGTTAAAGAAATTTGTCATAATTTCTCAGGCTATGTAGAAC	1839
Qy	1784	TGTTTGCAGGTATAGCTGTGTGTTACTTCTCGAGTTGATGTGTTACTGAGTTTTCGCGATT	1843
Db	1840	CAATGCGACACACTCAATGATGTGTAGCTCAGCTAGTAGTGTGTGTGAGCTTTTGTCTCAG	1899
Qy	1844	TGGCTGCCAGTTGCCCAAACCTCCCTACACAGAGCAAAATATCAGTCCACACAGATACAGGAG	1903
Db	1900	TGTCAAAATGAGCACCTGTTCCATNTGTACGACAGCCATTTTGGAGAAAGGACAAAGAA	1959
Qy	1904	ATATTAATCTTGAAAGGTTGAGGCATCCTTGTGTGGAAGCTCAAGATTTGGTTAACTCCA	1963
Db	1960	GAATTAATATAAAGCATCCAGGCATCTTGTGTGAAGTTCAAGATGAAATTTGCCATTTA	2019
Qy	1964	TTCCCTAATGACTGTAGACTAGTTAGGGGAGAGAGTTGGTTTTCAGATATCAACAGGCCCTA	2023
Db	2020	TTCCCTAATGACTATATCTTTGAAAAAGATAAACAGAGATTTTCCACATCAITACTTGGCCCCA	2079
Qy	2024	ACATGGGTGAAAGTCGACCTACATTCGGCAGGTTTGGTGTGAATGTCCTGATGGCCCCAAG	2083
Db	2080	ATATGGAGAGTAAATCAACATATATTCGACAACTGGGGTGAATGACTCATGGCCCCAAA	2139
Qy	2084	TTGGCTGTTTGTTCCTATGTGACAAATGCTACCAATTTCTATTTCGTGATGTGTATTTTGTCT	2143
Db	2140	TTGGGTGTTTGTGCCATGTGAGTCAGCAGAGAGTGTCATTTGGGACTGCATCTTAGCCC	2199
Qy	2144	GTGTTGGCGCTGGAGATTCGCAGCTCAGAGGAGTTTCTACTTTTATGCAAGAGATGCTTG	2203
Db	2200	GAGTAGGGCTGTGTGACAGTCAATTTGAAAGGAGTCTCCACGTTTCATGGCTGMAATGTTGG	2259
Qy	2204	AGACTGCATCGATCTTTGAAAGGAGTCTGATAGATCAITTGATTAATTTGATGAGTCTGG	2263
Db	2260	AACTGCTTCTATCTCAGGTCGCAACCAAGATTCATTTAATCATAGATGAATTGG	2319
Qy	2264	GCGCTGGGACATCAACCTACGATGGCTTTTGGTTTAGCTTTGGGCTATTTGTGAGCAATTG	2323
Db	2320	GAAGAGGAATTTCTACTTACGATGGATTTGGTTAGCATGGGCTATATCAGAATACTTG	2379
Qy	2324	TTGAGAAATTAAGCACCAACATGTTTGGCACTCACTTTCAATGAGCTGACTGCATATAG	2383
Db	2380	CAACAAAGATTTGGTGTCTTTTGTGATGTTTGGCAACCCATTTTTCATGAACCTTACTGCTTGG	2439
Qy	2384	CCAACAGATGGAGACAATGGACATAAGAAAAATGCTGGGATAGCAAAATTTTCATGTTT	2443
Db	2440	CCAATCAG-----ATACCAACTGTTTAATAATCATCATGTCA	2475
Qy	2444	TTGCACACATTTGACCCCTTCTAATTCGAAGTAACTATGCTTTTACAAGGTTTCCACCAGGTG	2503
Db	2476	CAGCATCA-----CCACTGAAGAGACCTTAACTATGCTTTTACGGTGAAGAAAGGTG	2529
Qy	2504	CTTGTGATCAGAGTTTGTGATTCATGTTGCTGAATTTGCAAAATTTTCCACCGAGTGTG	2563
Db	2530	TCGTGATCAAGATTTTGGATTCATGTTGACAGAGCTTCTTAATTTCCCTAAGCATGTA	2589

Qy	2564	TGGCTCGGCTAGAGAAAAGCGACTCTGAGTTGGAGGATTTCTCTCTCTATTTGCCAATAATTC	2623
Db	2590	TAGAGTGTGCTTAACAGAAAGCCCTCGAACTTGAGGAGTTTCAGTATATTGGAGAATCGC	2649
Qy	2624	CAAATGCAATTAAGAGGCGAGCTTTCAAACGGAGAGAGAGAAATTTGA	2669
Db	2650	AAGGATATGATATCATGGAACCAAGCAGCAAGAAAGTGTCTATCTTGA	2695

RESULT 13

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US-09-312-697-9
; Sequence 9, Application US/09912697
; Publication NO. US20030068808A1
; GENERAL INFORMATION:
; APPLICANT: Nicolaïdes, Nicholas C
; APPLICANT: Sass, Philip M
; APPLICANT: Grasso, Luigi M
; APPLICANT: Kline, J Bradford
; TITLE OF INVENTION: METHODS FOR GENERATING ANTIBIOTIC RESISTANT MICROBES AND NOVEL
; TITLE OF INVENTION: ANTIBIOTICS
; FILE REFERENCE: MOR-0040
; CURRENT APPLICATION NUMBER: US/09/912,697
; CURRENT FILING DATE: 2001-07-25
; NUMBER OF SEQ ID NOS: 39
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 9
; LENGTH: 3145
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-912-697-9

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Query Match	13.9%	Score 420.8	DB 10	Length 3145
Best Local Similarity	51.3%	Pred. No. 9.6e-107		
Matches 1194	Conservative 0	Mismatches 1072	Indels 60	Gaps 7
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Db	415	ATTGGTATTTGGCATAAAGGCCTCTCTGGCAATCTCTCTCAGTTTGAAGACATCTCTCT	474	
Qy	419	TTGCTAATAATGAATGCAAAATTTCTCGGTGATGTGCTTCTTGCTTCCAAACTTCGGTC	478	
Db	475	TTGCTAACAAATGATATGTCAGCTTCCATTGGTGTGGTGTGTAAATGTCGCCAGTTG	534	
Qy	479	AGAATGAATGTGAATTTGGCTTAGGCTATGTTGATATATCTAAGACAGTCTCTTGTTGTTAA	538	
Db	535	ATGCCACAGACAGGTTGGAGTTGGGTATGTGGATTCATACAGAGAAACTAGGACTGT	594	
Qy	539	CAGAAATTTCTAGATGATAGCCACATTCACAAATTTGGAGTCGTCTTGCTTGCTCTCTTGTT	598	
Db	595	GTGAATTTCCCTGATAATGATCAGTTCTCCAATCTTGGGCTCTCTCTCATCCAGATTTGGAC	654	
Qy	599	GCAGAGAAATGCTTTGTATCCAGCGGAGACTGGCCAAATCCAGTGAATACAGGCCTATGTTTG	658	
Db	655	CAAAAGGAATGTGTTTATCCCGGAG---GAGAGACTGTGTGGAGACATGGGAAACTGAGAC	711	
Qy	659	ATGCAATATCTAGATGCGGCGTGATGTTACTGTAAGAAAGAAACATCGAATTTAAAGGGA	718	
Db	712	AGATAATTTCAAAGAGAGGAATCTGATCACAGAAAGAAANAAGCTGACTTTTCCCAAA	771	
Qy	719	GAGATTTGGTACAGATCTTGTTAGGCTCGTCAAGGGTTCA-----CTAGAAC	766	
Db	772	AAGACATTTATCAGGACCTCAACCGTTGTTGAAGGCCAAAGGGAGACAGATGATA	831	
Qy	767	CTGTTCCAGATTTGGTCTCTCGGTTCCGAATGTGCATCAGGCGCTTTGGGGTGCATATCTTT	826	
Db	832	GTGCTGTATTTGCCAGAAATGGAGAAATCAGGTTTGCAGTTTCATCTGCTCGCGTAAATCA	891	
Qy	827	CTTATGCAGACTACTTTGCGGATCAGAGCAACTATGGAACCTATACAGTCAAAACAATACA	886	
Db	892	AGTTTTTAGAACTCTTATCATGATTTCCAACTTTGGACAGTTTGAATGACTACTCTTTTG	951	
Qy	887	ACCTCAATAGTTTACATCAGATTTAGATTTCTGCTGCTATGAGAGCACTGAAATCTTATGGAGA	946	

952	Db	ACTTCAGCAGTATATGAATTTGGATATTGCAGCAGTCAGAGCCCTTAACCTTTTTCAGG	1011
947	Qy	GCAAAATCAGATCGTATATAAAAAATTTTAGCTTGTTTCGGTCTGTGATGAATAGAACGTACTG	1006
1012	Db	GTTCCTGTTGAAGATACCACTGGCTCTCAGTCTCTGGCTGCCTTGCTGAATAAGTGTAAAA	1071
1007	Qy	CTGGAATGGTAAAGGTTATTTCGCATCTGGCTGAAGCAACCTTTACTAGATGTAGAAG	1066
1072	Db	CCCTTCAAGACAAGACATGTGTTAAACAGTGGAAATTAAGCAGCCTCTCATGGATAGAACA	1131
1067	Qy	AGATTAACTGTAGCTGGATTTAGTTTCAATTCATTCGTGGAGATGCTGGCTTCGCCAAG	1126
1132	Db	GAATAGGAGAGATTGAATTTTAGTGAAGCTTTTCTAGAAGATGCAGAAATTCAGGCAGA	1191
1127	Qy	ATTTGAGGAGCAAT----CTGAAAAGAAATTTCAGATATTAGCGGGCTGACACACAATCTTG	1183
1192	Db	CTTTTACAAGAAGATTTTACTTCGTCGATCCCAAGCTTAAACCGACTTGGCCAAGAGTTTC	1251
1184	Qy	AGAGGAAAAAGAGCCAGTTTAGTGCACGTTGTAAAACTCTATCAGTCAGTCAAGTACCAGAGTAC	1243
1252	Db	AAGACAAGCAGCAAACTTACAGATGTTACCGACTCTATCAGGGTATAAATCAACTAC	1311
1244	Qy	CATATATCAAAAGTGTTTTGGAAAGTCATGATGGGCAATTTGCAACCTCATCAGGAAA	1303
1312	Db	CTAATCTTATACAGGCTCTGGAAAAACATGAAGAAAAACACAGAAATTAATTTTGGCAG	1371
1304	Qy	GGTATATTGATCTCTAGAGAAATGGAGTGATGATAATCACCTGTAATAGTTTCATAGGTC	1363
1372	Db	TTTTTGTGACTCTCTTACTGA-----TCTTCGTTCTGACTTCTCGAAGTTTCAGGAAA	1425
1364	Qy	TTCTGGAAACTTCTGTTGACCTTGATCAACTTCGAGAATGGAGATAATCATGATTTCTTCTG	1423
1426	Db	TGATAGAAACAACTTTAGATATGATCAGGTGGAACCATGAATTCCTTGTAAAACTT	1485
1424	Qy	CATATGACCAAAATTTATCTGCTCTGAAGATGACGACAGACATTTGGACGCAAAATTC	1483
1486	Db	CATTTGATCCTATCTCAGTGAATTAAGAGAAATAATGAATGACTTTGGAAAAAGAGTGC	1545
1484	Qy	ATAATTTGCACAAACAACTGCCAAATGATCTTGATCTACCTATATGATAGTCACTTAAAC	1543
1546	Db	AGTCAACATTATAAGTGCAGCCAGAGATCTTGGCTTGGACCTTGGCAACAGATTTAAC	1605
1544	Qy	TAGATAAGAAAACAAATTTTGGACAGCTTTTCAGAAATTTACCAAGAAAGAAACCAAAAG	1603
1606	Db	TGGATTTCCAGTGCACAGTTTGGATATTACTTTTCGTCTAACCTCTAAGGAAGAAAAAGTCC	1665
1604	Qy	TCAGGAAGCAGCTAAATTTCTCACTACATTTGTTCTCGAAACACGCTAAGGATGGGTAAGT	1663
1666	Db	TTTCGTHA-----CAATAAAACTTTAGTACTGTAGATATCCAGAGAAATGGTGTAAAT	1719
1664	Qy	TCACCTATACAAACTCAAAAACTAGGAGATCAGTTCAGAAAGATTTGTAGAGGATACA	1723
1720	Db	TTACCAACAGCAAAATTTGACTCTTTTAAATGAAGAGTATACCAAAAAATAACACAGATATG	1779
1724	Qy	AAAGCTGTCCAGAAAGAAATTTGGTAGCTCGTGTAGTTTCAACAGCTGCGAGTTTCTCCGAGG	1783
1780	Db	AAGAAGCCAGGATGCCATTTGTTTAAAGAAATTTGTCATATTTCTTCAGGCTATGTAGAAC	1839
1784	Qy	TGTTTTCAGGATAGCTGGTGTACTTTCCTGAGTTGGATGTGTTTACTAGATTTTTCGGGATT	1843
1840	Db	CAATGCAGACACTCAATGATGTGTTAGCTCAGCTAGATGCTGTGTGTCAGCTTTTGCTCAG	1899
1844	Qy	TGGCTGCAGTTGCCAACTCCCTCAACAAGACCAAAATTCAGTCCACCAAGATACAGGAG	1903
1900	Db	TGTCAAATGGAGCACCTGTTTCCATATGTACGACACGCCAATTTTGGAGAAAGGCAAGGAA	1959
1904	Qy	ATATATTACTTGAAGGGTGTAGGCATCTTGTCTGGAAGCTCAAGATTTGGTTTAACTCCA	1963
1960	Db	GAATTAATTAAAGCATCCAGGCATGCTTTGTGTGAAGTTTCAAGATGAATTTGCATTTA	2019
1964	Qy	TTCTTAATCACTGTAGACTAGTTTAGGGGAGAGAGTTGGTTTTCAGATTTATCACAGGCCCTA	2023

Db 2020 TTCTAATGACGTATACCTTTTGAAGAAGATAAACAAGATGTTCCACATCACTACTGCGCCCA 2079
 Qy 2024 ACATGGGTGGAAGTCGACCTACATTCGGCAGGTTGGTGTGAATCTCTGATGCGCCCAAG 2083
 Db 2080 ATATGGGAGGTAAATCAACATATATTCGAACAACCTGGGGTGATGATCTCATGGGCCCAAA 2139
 Qy 2084 TTGGCTCGTTTGTTCCTCATGTGCAAGTCACATTTCTATTCTGTTGATTTGTTTGTCTC 2143
 Db 2140 TTGGGTGTTTGTGTCATGTGAGTCAGCAGAGAAGTGTCCATTGTGAGCTGCATCTTAGCCC 2199
 Qy 2144 GTGTGTGGCGCTGGAGATTGCCAGCTGAGAGGATTTCTACTTTTATGCAAGAGATGCTTG 2203
 Db 2200 GAGTAGGGCTGGTGACAGTCAATTTGAAGAGAGTCTCCACGTTTCATGGCTGAAATGTTGG 2259
 Qy 2204 AGACTGCATCGATCTTGAAGAGAGCTACTGATAGATCAATGATTAATGATTAATGATGATGG 2263
 Db 2260 AAATGCTTCTATCTCTAGGCTGCAACCAAGATTCAATTAATCAATCAATGATGAATGG 2319
 Qy 2264 GCCGTGGGACATCAACCTACGATGGCTTTGGTTAGCTTTGGCTTATTTGTGAGCACATTG 2323
 Db 2320 GAAGAGGAACCTTCTACCTACGATGGATTGGGTTAGCATGGCTATATCAGATACATTG 2379
 Qy 2324 TTGAAGAAATTAAGACCAACATTTGTTGCCACTCACTTTTCATGAGCTGACTGATAG 2383
 Db 2380 CAACAAGATTTGGTCTTTTGGCATGTTTGAACCCCATTTTCATGAATCTACTGCTTGG 2439
 Qy 2384 CCAACAAGATGAGACCAATGGAACATAAGAAAATGCTGGGATAGCAAAATTTTCATGTTT 2443
 Db 2440 CCAATCAG-----ATACCACTGTTAAATCAATGATCA 2475
 Qy 2444 TTGCACACATGACCTTCTAATCGCAAGTAACTATCTTTTACAAGGTTTCAACCCAGTG 2503
 Db 2476 CAGCACTCA-----CCACTGAAGAGACCTTAACTATGCTTTTATCAGGTGAAGAAAGTG 2529
 Qy 2504 CTTGTGATCAGGTTTGTATTTCACTGTTCTGATTTGCAAAATTTTCCACCGAGTGTG 2563
 Db 2530 TCTGTGATCAAGTTTTTGGGATTCATGTTGCAGAGCTTGTCTAATTTCCCTAAGCATGTA 2589
 Qy 2564 TGGCTCTGGCTAGAGAAAGGCACTCAGTTGGAGGATTTCTCTCTATTTGCCATATTC 2623
 Db 2590 TAGAGTGTCTAACAGAAAGCCCTGAACTTGAGGAGTTTCAGTATTTGGAGATTCGC 2649
 Qy 2624 CAATGACATTAAGGGCAGCTTCAAAACGGAAGAGAGAAATTTGA 2669
 Db 2650 AAGGATATGATATCATGGAACCAAGCAGCAAGAAAGTCTATCTGGA 2695

RESULT 14

US-09-760-285-21
 ; Sequence 21, Application US/09760285
 ; Publication No. US2003009197A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Nicolaides, Nicholas C
 ; APPLICANT: Grasso, Luigi M
 ; APPLICANT: Sassi, Philip M
 ; TITLE OF INVENTION: CHEMICAL INHIBITORS OF MISMATCH REPAIR
 ; FILE REFERENCE: MOR-0017
 ; CURRENT APPLICATION NUMBER: US/09/760,285
 ; CURRENT FILING DATE: 2001-01-15
 ; NUMBER OF SEQ ID NOS: 44
 ; SOFTWARE: Patent In Ver. 2.1
 ; SEQ ID NO 21
 ; LENGTH: 3145
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-09-760-285-21

Query Match 13.9%; Score 420.8; DB 10; Length 3145;
 Best Local Similarity 51.3%; Pred. No. 9.6e-107;
 Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;
 Qy 359 ACTGGAGACTGGTAAAGTGGAAACCCCAAGGAATCTTGGAAATTTTGGAGTATTTCTGT 418

Db 415 ATTGTAATTTGGCATATAAGGCTTCTCTGGCAATCTCTCAGTTTGAAGACATTTCTCT 474
 Qy 419 TTGCTAATTAATGAATGCAAAATTTCTCGGTGATTTGCTGCTCTTCCAAACTTCGGTC 478
 Db 475 TTGGTAACAATGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 534
 Qy 479 AGAATGGATGGAAGTTGGCTTAGGCTATGATGATGATGATGATGATGATGATGATGATG 538
 Db 535 ATGGCCAGAGACAGGTTGGGATGATGATGATGATGATGATGATGATGATGATGATGATG 594
 Qy 539 CAGAATTTCTAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 598
 Db 595 GTGAATTTCCCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 654
 Qy 599 GCAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 658
 Db 655 CAAAGGAATGTTTACCCTGGAG--GAGAGACTGCTGGAGACATGGGGAACATGAGAC 711
 Qy 659 ATGCAATATCTAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 718
 Db 712 AGATAATTTCAAGAGAGAGGAAATTTCTGATCA CAGAAAGAAAGAAAGCTGACCTTTCCACA 771
 Qy 719 GAGATTTGGTACAGATCTTTGGTAGGCTCGTCAGGTTTCA-----GTAGAAC 766
 Db 772 AAGACATTTATCAGGACCTCAACCGGTTTGTGAAGGCAAAAGGAGAGCAGATGAATA 831
 Qy 767 CTGTTTCAGATTTGCTCTCTGGTTTCAATGTCATCAGGCGCTTTGGGGTGCATACCTTT 826
 Db 832 GTGCTGTTATTCAGAGAAATGAGAAATCAGGTTGAGTTTTCATCACTGCTGCGGTAATCA 891
 Qy 827 CTTATGACAGAACTACTTGGCGATGAGAGCAACTATGAAACTATACAGTCAAAACAATACA 886
 Db 892 AGTTTATGAGAACTCTTATCAGATGATTTCCAACTTTGACAGTTTGAATGAACTGACTACT 951
 Qy 887 ACCTCAATAGCTTATCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 946
 Db 952 ACTTCAGCCAGTATGAAATTTGATTTGATGATGATGATGATGATGATGATGATGATGATG 1011
 Qy 947 GCAATCAGATGCTAATAAATAATTTTAGCTTGTTCGCTCTGATGAAATAGAACGTTGACTG 1006
 Db 1012 GTTCTGTTGAAGATACCACTGGCTCTCAGTCTCTGCTGCTGCTGCTGCTGCTGCTGCTG 1071
 Qy 1007 CTGGAATGGTAAAGGTTTATTCACATGTTGGCTGAGCAACCTTTACTAGATGATGAGAG 1066
 Db 1072 CCCCCTCAAGGACAAAGCACTTTTAAACAGTGGATTAAGCAGCCTCTCATGATAAAGACA 1131
 Qy 1067 AGATTAACCTGAGCTGGATTTAGTTCAATCATCTCGTGGAGGATGCTGCGCTTCGCCAAG 1126
 Db 1132 GAATAGAGGAGATTTGATTTAGTGAAGCTTTTGTAGAAGATGAGAAATGAGGAGAG 1191
 Qy 1127 ATTTGAGGAGCAT---CTGAAAGAAATTTGAGATTTGAGCGCTGACACACAATCTTG 1183
 Db 1192 CTTTACAGAAGATTTTACTGTCGATTTCCAGATCTTAAACGACTTGCACAGAAGTTTC 1251
 Qy 1184 AGAGGAAAGAGCCAGTTTATGTCAGCTTTGTAACCTCTATCAGTCAAGTACAGAGTAC 1243
 Db 1252 AAAGCAAGCAGCAAACTTTCAAGATTTGTTACCGACTCTATCAGGTTTAAATCAACTAC 1311
 Qy 1244 CATATATCAAAAGTGTTTTGAACGTCATGATGGCAATTTGCAACACTCATCAGGAA 1303
 Db 1312 CTAATGTTATACAGGCTCTGGAAACATGAAGGAAACACCCAGAAATTTTGTGGGAG 1371
 Qy 1304 GGTATATTGATTTCTAGAGAAATGAGTGAATGATTAATCACTGAAATAGTTTCATAGGTC 1363
 Db 1372 TTTTGTGACTCTCTTACTGA-----TCTTCGTTCTGACTTCTCCAGTTTCAGGAA 1425
 Qy 1364 TTGTGGAACCTTCTGTTGACCTTGTATCACTTGAAGATGAGAAATACATGATTTCTTCTG 1423
 Db 1426 TGATAGAAACAACTTTAGATATGATGATGATGATGATGATGATGATGATGATGATGATG 1485
 Qy 1424 CATATGACCCAAATTTATCTCTCTGAGGATGAGCAAGAGACATTTGGAGGACAAATTC 1483
 Db 1486 CATTTGATCTTATCTCAGTGAATTTAGAGAAATTAATGAATGACTTTGAAAAAGAGATGC 1545

1484 ATAAATTTGACAAACAACTGCAATGATCTTCTGATCTACCTATTGATAAGTCACTTAAC 1543
1546 AGTCAACATTAATAAGTCAGCAGAGACTTGGCTTGGACCTTGCACACAGATTAAC 1605
1544 TAGATAAAGAAACAAATTTGGACAGCTCTTCCAGATTAACCAAGAAAGAACCAAAAG 1603
1606 TGGATTCCAGTCAGAGTTGGATATTAATTTGCTGTAACCTGTAGGAAGAAAAGTCC 1665
1604 TCAGGAAGCAGCTAAATCTCTACATGTTCTCGAAACAGTAAAGTGGTAAAGT 1663
1666 TTCTGTA-----CAATAAAACTTTAGTACTGTAGATATCCAGAAAGATGGTAAAT 1719
1664 TCACCTATCAAAACAACTAGAGATCAGTTCCAGAAAGATTTAGAGGAGTACA 1723
1720 TTACCAACAGCAATTTGCTTTAAATGAAGATATACCAAAATAAACAAGATATG 1779
1724 AAAGCTGTGAGAAAGATTTGGTAGCTGCTGTAGTTCAACACAGCTGGAGTTTCCGAGG 1783
1780 AAAGAGCCAGGATGCCATTTGTAAGAAATTTGTCAATATTTCTTCAGGCTATGTAGA 1839
1784 TGTTCAGGATAGCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1843
1840 CAATGACACATCAATGATGTTAGCTCAGTATGCTGTTGCTGCTGCTGCTGCTGCTG 1899
1844 TGGCTGCCAGTTGCCCACTCCCTACACAAAGCAAAATATCAGTCCACAGATACAGGAG 1903
1900 TGTCAATGGAGCCTGTTCCATATGATGACAGCAGCCATTTGGAGAAAGCAGAGAA 1959
1904 ATATTATATTTCAAGGCTAGGATCTTGTGTGAGAGCTCAAGATTTGGTAACTCCA 1963
1960 GAATATATTAAGCAATCCAGGCTGCTGTTGTAAGTTCAAGATGAATTTGCAATTA 2019
1964 TTCTTAATGACGTAGCTAGTTAGTGGGAGAGAGTTGTTTCAGATTTATCAGGCCCTA 2023
2020 TTCTTAATGACGTATACTTTGAAGATAAACAAGATTTCCATCATTTACTGGCCCA 2079
2024 ACATGGGTGGAAGTGCACCTACATTCGCGAGTTGGTGTGAATGCTCCTGATGGCCCAAG 2083
2080 ATATGGAGGTAATCAACATATATTCACAACTGGGTGATGATCTCAATGGCCCAA 2139
2084 TTGGCTCTGTTGTTCCATGTGACATGCTACATTTCTTATCGTGAATTTGTTGCTC 2143
2140 TTGGGTGTTTGTGCTATGAGTCAGAGAGTGTCCATTTGTGACATGCTATAGGCC 2199
2144 GTGTTGGCTGGAGATTCACAGCTGAGAGAGTTTCTTCTTATGCAAGAGATGCTTG 2203
2200 GAGTAGGGCTGGTGACAGTCAATTTGAAGAGTCTCCAGCTTCAAGCTGAAATGTTGG 2259
2204 AGACTGCATCGATCTTGAAGAGGCTACTGATGATCAATGATTATATGATGATGTTGG 2263
2260 AAATCTGCTTCTATCCTCAGTCTGCAACCAAGATTCATTAATATCATAGATGAATGG 2319
2264 GCCGTGGACATCAACCTACGATGCTTGGTTAGCTTGGCTATTTGTGAGACATTTG 2323
2320 GAAGAGGAATCTTACCTACGATGATTTGGTTAGCATGGGCTATATTCAGAAATACAT 2379
2324 TTGAAGAAATTAAGCACCACAACTTTGTTGGCCTCACTTTATGAGCTGCTGCTGCTG 2383
2380 CAACAAGATTTGGTCTTTTGGATGTTGCAACCCATTTTCAGAACTTACTGCTTGG 2439
2384 CCAACAAGATTTGGATGATGCAATAAGAAAATGCTGGGATAGCAAAATTTTCATGTTT 2443
2440 CCAATCAG-----ATACCAACTGTTTAATATCTACATGCA 2475
2444 TTGACACATTTGACCTTCTAATCCAGAGCTAACTATGCTTTTCAAGGTTCCACCAAGTG 2503
2476 CAGACTCA-----CCACTGAAGAGACCTTAATCTATGCTTTTATCAGGTGAAGAAAGTG 2529
2504 CTTGTGATCAGAGTTTGGTATTCATGTTGCTGAATTTGCAATTTTCCACCGAGTTG 2563
2530 TCTGTGATCAAGTTTGGGATTCATGTTGAGAGCTTGTCTTAATTTCCCTAAGCATGTAA 2589

QY 2564 TGGCTCTGGCTAGAGAAAGGCATCTGAGTTGGAGATTTCTCTCTATTGCCATTAATTC 2623
Db 2590 TAGAGTGTCTTAAACAGAAAGCCCTGGAACTTTGAGAGTTTCAGTATATTGGAGAAATCC 2649
QY 2624 CAAATGACATTAAGAGGAGCAGCTTCCAAACCGAAGAGAGAAATTTGA 2669
Db 2650 AAGGATATGATATCATGTGAACCCAGCAGCAAGAAGTGTCTATCTGA 2695

RESULT 15

US-10-342-887-455
; Sequence 455, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
; APPLICANT: Linsley, Peter S.
; APPLICANT: Mao, Mao
; APPLICANT: Roberts, Christopher J.
; APPLICANT: Van 't Veer, Laura Johanna
; APPLICANT: Van de Vijver, Marc J.
; APPLICANT: Bernards, Rene
; TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
; FILE REFERENCE: 9301-188-999
; CURRENT APPLICATION NUMBER: US/10/342,887
; CURRENT FILING DATE: 2003-01-15
; PRIOR APPLICATION NUMBER: 60/298,918
; PRIOR FILING DATE: 2001-06-18
; PRIOR APPLICATION NUMBER: 60/380,710
; PRIOR FILING DATE: 2002-05-14
; PRIOR APPLICATION NUMBER: 10/172,118
; PRIOR FILING DATE: 2002-06-14
; NUMBER OF SEQ ID NOS: 2699
; SEQ ID NO 455
; LENGTH: 3145
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-342-887-455

Query Match 13.9%; Score 420.8; DB 12; Length 3145;
Best Local Similarity 51.3%; Pred. No. 9.6e-107;
Matches 1194; Conservative 0; Mismatches 1072; Indels 60; Gaps 7;

QY 359 ACTGAGAGCTGGTAAAAAGTGGAAACCCAGGAACTCTTGGAGTTTGGAGATTTCTGT 418
Db 415 ATTGATTTTGGCATATAGGCTTCTCTGCAATCTCTCAGTTTGAAGATTTCTCT 474
QY 419 TTGCTAATTAATGAATGCAAAATTTCCGGTGTATGCTGCTCTTCTCCAACTTCGGTC 478
Db 475 TTGCTAACAATGATATGTGCTTCCATTTGGTGTGGTGTAAATGTCCGAGTTG 534
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Db 535 ATGCCAGAGACAGTTGGAGTTGGGTATGTTGGATTTCCATACAGAGGAACTAGGACTGT 594
QY 539 CAGAAATTTAGATGATAGCCACTTTCACAAATTTGGAGTCTGCTTTGTTGCTCTGTT 598
Db 595 GTGAATTTCCCTGATTAATGATCAGTTCTTCAATCTTGAAGCTTCTCTCATCAGATTGGAC 654
QY 599 GCAGAGATGTTGTGTACCAGCGAGAGCTGCCAAATCCAGTGAATACAGGCTATGTTG 658
Db 655 CAAAGGAATGTTTACCCTGGAG---GAGAGACTGCTGGAGCATGGGAAACTGAGAC 711
QY 659 ATGCAATATCTAGATCGGCGTGTATGTTAACTGAAGAAAGAAAACCTGAATTTAAAGGA 718
Db 712 AGATAATTCAGAGGAGGAAATTTCTGATCAGAAAGAAAAGAAAGCTGCTTTTCCCAA 771
QY 719 GAGATTTGGTACAGGATCTTGGTAGGCTCTCAGGTTTCA-----GTAGAAC 766
Db 772 AAGACATTTATCAGACCTCAACCGGTTTGTGAAGGCAAAAAGGAGAGACATGAATA 831
QY 767 CTGTTGAGATTTGGTCTCTGCGGTTCGAATGTGATCAGGCGCTTTGGGGTGATATCTTT 826

832 GTGCTGTATTGCCAGAAATGGGAATCAGGTTGCGAGTTTCACTCAGTCTCGGGTAAATCA 891
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 827 CTTATGCGAAGTACTTTCGGGATGAGAGCAACTATGGAAGTATATACAGTCAACATACA 886
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 892 AGTTTGTAGACTTCTATCAGATGATCCAACTTTGGACAGTTTGAAGTACTACTTTTG 951
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 947 GCAAAATCAGATCTAATAAAATTTAGCTTTGCTGCTGATGAGAGCACTGAATGTTATGG 1006
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 1127 ATTTGAGGAGCAT---CTGAAAAGAAATTCAGATTTGAGCGGCTGACACAAATCTTG 1183
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 1184 AGAGAAAGAGCCAGTTTGTAGTGCAGTTGTAAACTCTATCAGTCAAGTACCAGAGTAC 1243
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 1312 CTAATGTTATACAGGCTCTGGAAGAAACATGAAGGAAACACACAGAAATTAATTTGGCAG 1371
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 1304 GGTATATTGATTTCTAGAGAAATGGAGTGAATTAATCAGCTGAATTAATTAATTTGAGT 1363
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 1372 TTTTGTGACTCCTCTTACTGA-----TCTTGTGTTCTGACTTCTCCAGTTTCAGGAAA 1425
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 1426 TGATAGAAACAACTTTAGATATGATCAGGTGGAACCACTGATTTCTTTGAAACCTT 1485
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 1424 CATATGACCCAAATTTATCTGCTGAGGATGAGCAAGACATTTGAGCGCAAAATTC 1483
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 1486 CATTTGATCTTAATCTAGTGAATTAAGAGAAATTAATGAATGACTTGGAAAGAGATGC 1545
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 1546 AGTCAACATTAATAGTGAGCCAGAGATCTTGGCTTGGACCTTGGCAACAGATTTAAC 1605
 QY
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 1606 TGAATCCAGTGACAGTTTGGATATTTACTTTCGTGTAACCTGTAAGGAGAAAGTCC 1665
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 1604 TCAGGAAGCAGCTAAATTTCTCACTATGTTCTGCAACAGATTAAGGATGGGTAAGT 1663
 Db
 1666 TTCGTAA-----CAATAAAACCTTTAGTACTGTAGATATCCAGAAAGTGTGTTAAAT 1719
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 1720 TTACCAACAGCAAAATTTGACTCTTTTAAATGAAGAGATATACCAAAATTAACAGAAATATG 1779
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 1780 AAGAGCCAGGATGCCATTTGTTAAGAAATTTGTCAATATTTCTTCAGGCTATGTAGAAC 1839
 QY
 1784 TGTGTCAGGTAAGCTGCTGATTTGCTGATTTGATGTTGATTTGATTTGCTGATTTGCGGAT 1843
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 1840 CAATGCAGACACTCAATGATGTTTAGCTCAGCTAGATGCTGTTGCTCAGCTTTGCTCAG 1899
 QY
 1844 TGGCTGCCAGTTGCCAACTCCCTACACAGACCAAAATATCAGTCCACAGATACAGGAG 1903
 Db
 1900 TGTCAATGGAGCACCTGTTCCATATGTACGACCCAGCCATTTTGGAGAAAGGACAAAGAA 1959

QY 1904 ATATTATATCTTGAAGGTTGAGGATCTCTTGTGTGGAAGTCAAGATTTGGTTAACTCCA 1963
 Db 1960 GAATATATATAAAGCATCCAGGATGCTTGTGTGAAGTTCAAGATGAATTTGCAATTTA 2019
 QY 1964 TTCTAAATGACTGTAGACTAGTTAGGGAGAGAGTTGGTTTCAGATTTATCACAGGCCCTA 2023
 Db 2020 TTCTAAATGACGTATACITTTGAAAAGATAAAGATGTTCCACATCATTTCTGGGCCCA 2079
 QY 2024 ACATGGGTGAAAAGTGCACCTACATTTGGCAGGTTGGTGTGAATGTCCTGATGGCCCAAG 2083
 Db 2080 ATATGGGAGGTAATAACACATATATTCGACAAACTGGGTGATAGTACTCATGGCCCAA 2139
 QY 2084 TTGGGCTCGTTTCTCATGTGCAATGCTACCATTTCTATTCTGATGTTATTTGCTC 2143
 Db 2140 TTGGGCTGTTTGTGCAATGTGAGTCAGCAAGATGTCCTATTGTGGAAGTCTTATAGCCC 2199
 QY 2144 GTGTTGGGCTGGAGATTGCCAGCTGAGAGGATTTTCTACTTTTATGCAAGAGATGCTTG 2203
 Db 2200 GAGTAGGGGCTGTCAGAGTCAATTTGAAAGGAGTCTCCACGTTTCATGCTGAAATGTTGG 2259
 QY 2204 AGACTGCAATCGATCTTGAAGAGAGCTACTGATAGATCATTTGATTTAATTAATGATGTTGG 2263
 Db 2260 AAATCTGCTTCTATCTCTCAGGCTGCAACCAAGATTCATTAATAATCATAGATGAATGG 2319
 QY 2264 GCGGTGGGACATCAACCTACGATGCTTTGTTAGCTTTGGGCTATTGTTGAGCACATG 2323
 Db 2320 GAGAGGAACTTCTACCTACGATGATTTGGGTTAGCTGAGCTATATCAGAAATCATTTG 2379
 QY 2324 TTGAAGAAATTAAGCACCAACATTTGTTGCCACTCCTTTTCATGAGCTGACTGCAATTAG 2383
 Db 2380 CAACAAAGATTTGGTCTTTTTCATGTTGCAACCCCAATTTTCATGAACCTTACTGCTTGG 2439
 QY 2384 CCAACAGAAATGGAGACAAATGGAATGAAGAAATGCTGGGATAGCAAAATTTTCATGTTT 2443
 Db 2440 CCAATCAG-----ATACCAACTGTTAATAATCTACATGTCA 2475
 QY 2444 TTGCACACATTTGACCCCTTCTAATCGAAGCTAACTATGTTTACAGGTTTCCACCAGGTG 2503
 Db 2476 CAGCACTCA-----CCACTGAAGAGACCTTAACTATGCTTTTTCAGGTGAAGAAAGTTG 2529
 QY 2504 CTTGTGATCAGAGTTTGTGTTATTCATGTTGCTGAATTTGCAAAATTTCCACCGAGTGTG 2563
 Db 2530 TCTGTGATCAAAATTTTGGGATTCATGTTGAGAGCTTTGTAATTTCCCTAAGCAATGAA 2589
 QY 2564 TGGCTCTGGCTAGAGAAAGGCACTGAGTTGGAGGATTTCTCTCTTATTTGCCATAATTC 2623
 Db 2590 TAGAGTGTGCTTAAACAGAAAGCCCTGGAACTTTGAGGAGTTTTCAGTATATTTGGAGAAATCGC 2649
 QY 2624 CAATGACATTTAAAGAGGCGAGCTTCAAAACGGAAGAGAGAAATTTGA 2669
 Db 2650 AAGGATATGATATCATGTGAACCCAGCAGCAAGAAAGTGTCTATCTGGA 2695

Search completed: April 9, 2004, 09:54:10
 Job time : 1026 secs